HIGHLIGHTS

REVISION NO. 33 Jun 01/10

Pages which have been revised are outlined below, together with the Highlights of the Revision

CH/SE/SU C PAGES	REASON FOR CHANGE	EFFECTIVITY
CHAPTER 35		
L.E.P. 1- 2	Revised to Reflect this revision indicating new,revised, and/or deleted pages	
T. OF C. 1- 2	Revised to reflect this revision	
35-10-00 601	New Topic/New Configuration Mod.0001X0567 incorporated **TECHNICAL PUBLICATION-BASIC MODIFICATION.**	
35-12-00 501	Minor additions and amplification **CORRECTED TITLE AND REASON FOR THE JOB**	
35-21-11 408- 411	Minor additions and amplification **NEW WORK STEP ADDED**	
35-32-11 601	Minor additions and amplification **HYDROSTATIC TEST AND CHECK OF PRESSURE RELIEF VALVE IN WORKSHOP ADDED.**	

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CHAPTER 35

OXYGEN

LIST OF EFFECTIVE PAGES

N, R or D indicates pages which are New, Revised or Deleted respectively
Remove and insert the affected pages and complete the Record of Revisions and the Record of Temporary Revisions as necessary

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OF TEMP.			
REVISION			
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1. General

**ON A/C 001-003,

The oxygen system comprises the crew oxygen system, passenger oxygen system and portable oxygen system, including associated controls, monitors and indicators.
The systems are independent of each other.

**ON A/C ALL

Post SB 35-2004 For A/C 001-003,

The oxygen system comprises the crew oxygen system, passenger oxygen system, portable oxygen system and protective breathing equipment, including associated controls, monitors and indicators. The systems are independent of each other.

**ON A/C ALL

2. Description

A. Crew Oxygen System (Ref. 35-10-00)
The system provides adequate oxygen to sustain the crew in the event of cabin decompression or emission of smoke and noxious gas. Each crew station is equipped with a quick-donning mask which has a mask-mounted regulator. Oxygen is supplied to the masks from a stationary high-pressure oxygen cylinder via a pressure regulator/transmitter unit, distribution block and distribution lines.

B. Passenger Oxygen System (Ref. 35-20-00)
For passengers and cabin attendants, oxygen is provided from chemical oxygen units installed above the passenger seats, in lavatories, galley areas and at cabin attendant stations.
Each unit contains a solid state chemical oxygen generator and two or more oxygen masks and supply lines. If decompression occurs, oxygen masks are released automatically via an altitude switch or manually via an override switch. The oxygen masks can also be released with a manual release tool.

**ON A/C 001-003,

C. Portable Oxygen (Ref. 35-30-00)
The portable oxygen system supplies supplementary oxygen for passengers and crew to augment or as a substitute for fixed systems.

(1)Flight Crew System
A self-contained, high-pressure portable oxygen unit is provided in the flight compartment for crew to perform duties such as fighting a fire or as a second supply source of emergency oxygen for one crew member in case of malfunction of the fixed oxygen system.
(2)Cabin Attendants System
Self-contained, high-pressure, portable oxygen units are distributed at various locations throughout the cabin to provide first aid oxygen for passengers, and for the cabin attendants use while fighting a fire.

R **ON A/C 004-200,

C. Portable Oxygen (Ref. 35-30-00)
The portable oxygen system supplies supplementary oxygen for passengers and crew to augment or as a substitute for fixed systems.
(1)Cabin Attendants System
A self-contained, high-pressure, portable oxygen unit is installed in the cabin to provide first aid oxygen for passengers.

**ON A/C ALL

Post SB 35-2004 For A/C 001-003,

D. Protective Breathing Equipment (Ref. 35-31-00)
A protective breathing equipment is installed for flight crew members and cabin attendants. The equipment is stored in various locations in the flight compartment and in the passenger compartment. It is a self-contained unit with an oxygen supply. The equipment is used by crew members in the event of cabin decompression or smoke or noxious gas emissions.

1. Reason for the Job
Special Precautions when working on a Gaseous Oxygen System.

2. Equipment and Materials
Referenced Procedures
- 24-41-00, P. Block 301 Aircraft Grounding

3. Procedure
A. Special Precautions when you work on a Gaseous Oxygen System
(1)When you remove pipes or units temporarily, always put metal or plastic blanking plugs on the disconnected line ends. Make sure that these plugs are new, clean and dry. Use one new clean vinyl bag for each pipe or unit. Put the pipe or unit in the bag and seal it. Unwanted materials in the oxygen system can cause damage to the system.
(2)Make sure that the manual shutoff valves on all oxygen cylinders are closed before you loosen a connection in the osygen system.
(3)Make sure that the aircraft and the Oxygen Ground Cart are Electrically Grounded (Ref. TASK 24-41-00, P. Block 301).
(4)Prevent all maintenance procedures nearer than 5 m (16.4 ft) to the work area of the aircraft.
(5)Also stop:
- all refueling,
- all repairs on fuel and hydraulic systems,
- all procedures that use flammable materials such as cleaning and de-icing materials.
(6)Make sure that no person connects/disconnects the ground power connector.
(7)Make sure there is a **WARNING** notice in position to tell persons not to use any electrical switches during the filling procedure.
(8)Make sure that the work area is clean and clear of dust and loose articles.
(9)Use only approved procedures and materials to clean the components of the oxygen system.
(10)Make sure that there are no hydrocarbons (fuels, lubricants etc.) in the work area. Oxygen becomes explosive when it touches hydrocarbons.
(11)Make sure that there are no sources of ignition (sparks, flame, smoking etc.) in a radius of 15 m (50 ft.) of the filling equipment.
(12)Make sure that there are no flammable materials (paint, thinners, cleaning solvents, dust etc.) in the work area.
(13)Make sure that your hands, clothing, equipment and tools are all clean and clear of hydrocarbons.
(14)If possible, use clean lint-free cotton-gloves when you touch components in the oxygen system.
(15)Make sure that there is a good flow of air through the working area to prevent a contamination of oxygen.
(16)Do not loosen or tighten connections when the system is pressu-

rized.

(17) Open the manual shutoff valves on all oxygen cylinders slowly to prevent a sudden increase in temperature.

(18) Close the manual shutoff valves on all oxygen cylinders with your hands. Do not use force to tight them.

(19) Obey the national rules for oxygen filling.

1. General

A. Purpose and Functions
The crew fixed oxygen system ensures the protection of each flight crew member, occupying a seat in the flight compartment, in the following conditions :
- loss of cabin pressure altitude
- smoke or noxious gas emission.

B. System Installation Arrangement in the A/C
(Ref. Fig. 001)

2. System Design Conditions

A. General Conditions
The definition of oxygen systems for commercial jet aircraft with pressurized cabins used above flight level 250 and up to flight level 400 to take into account the following criteria :
- study of the relevant official rulings
- suitable terminology
- study of oxygen quantity requirements and autonomy.

B. Specific Conditions
(1)Flight conditions
(a)Normal conditions
- A/C normal maximum flight altitude : 41,000 feet
- A/C normal maximum cabin altitude : 8000 feet

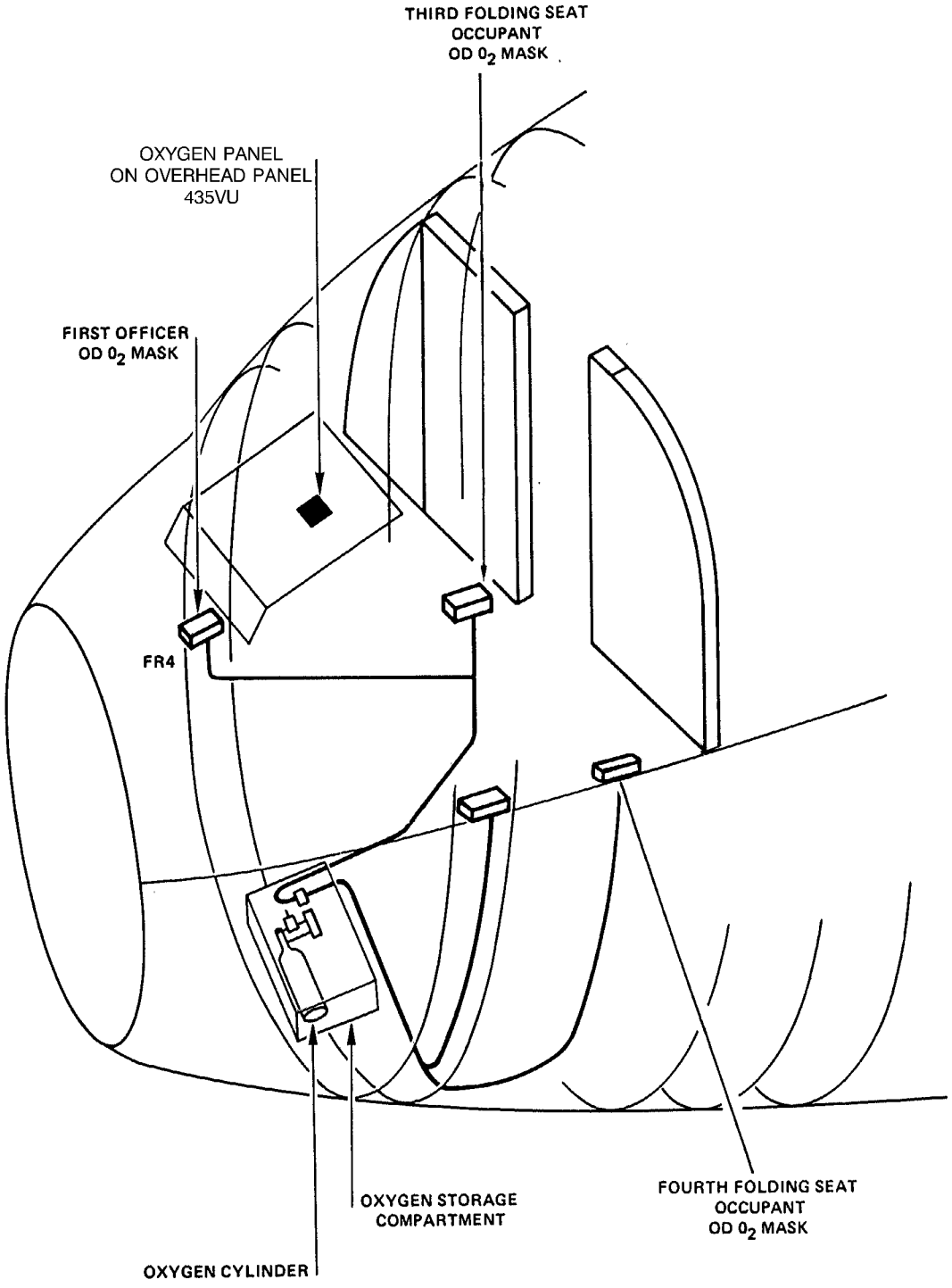
(b)Critical conditions (Ref. Fig. 002, 003)
The critical flight conditions after a cabin pressure loss considered as the minimum A/C certification conditions are defined in corresponding figures.
(Ref. Fig. 002)

(2)Number of users Flight Crew Members = Four
(3)Supply source
The Flight crew oxygen system includes : a fixed installation supplying the stations corresponding to the crew members seated in the flight compartment.
The installation is supplied from a gaseous oxygen source, the characteristics of which comply with US MIL standard O-27210-type 1 requirements.
(4)Supply conditions - Degree of protection
(Ref. Fig. 004)

3. Description

A. Basic Documents

R **ON A/C 001-104,



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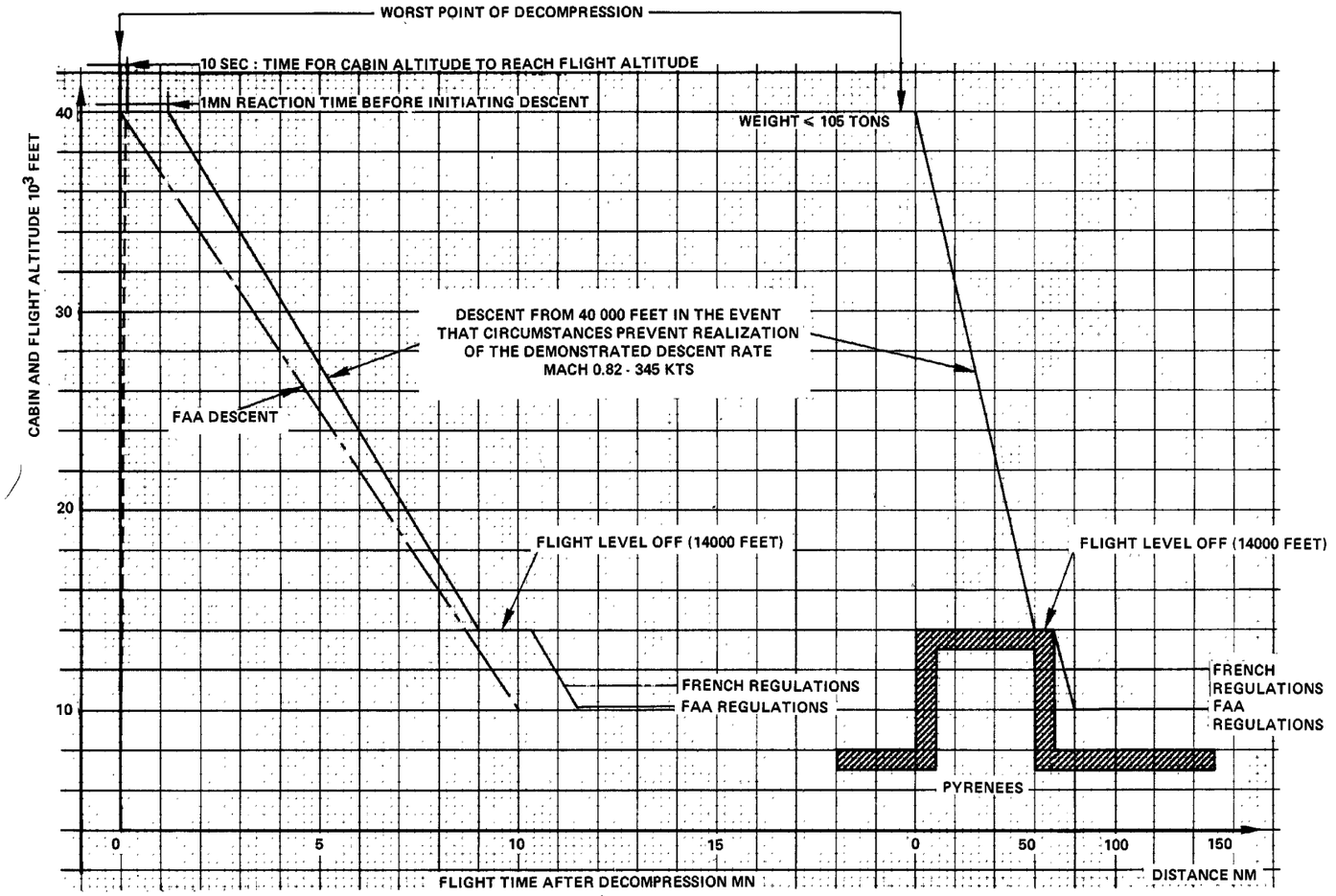
Installation Diagram of Fixed Oxygen in Aircraft
Figure 001



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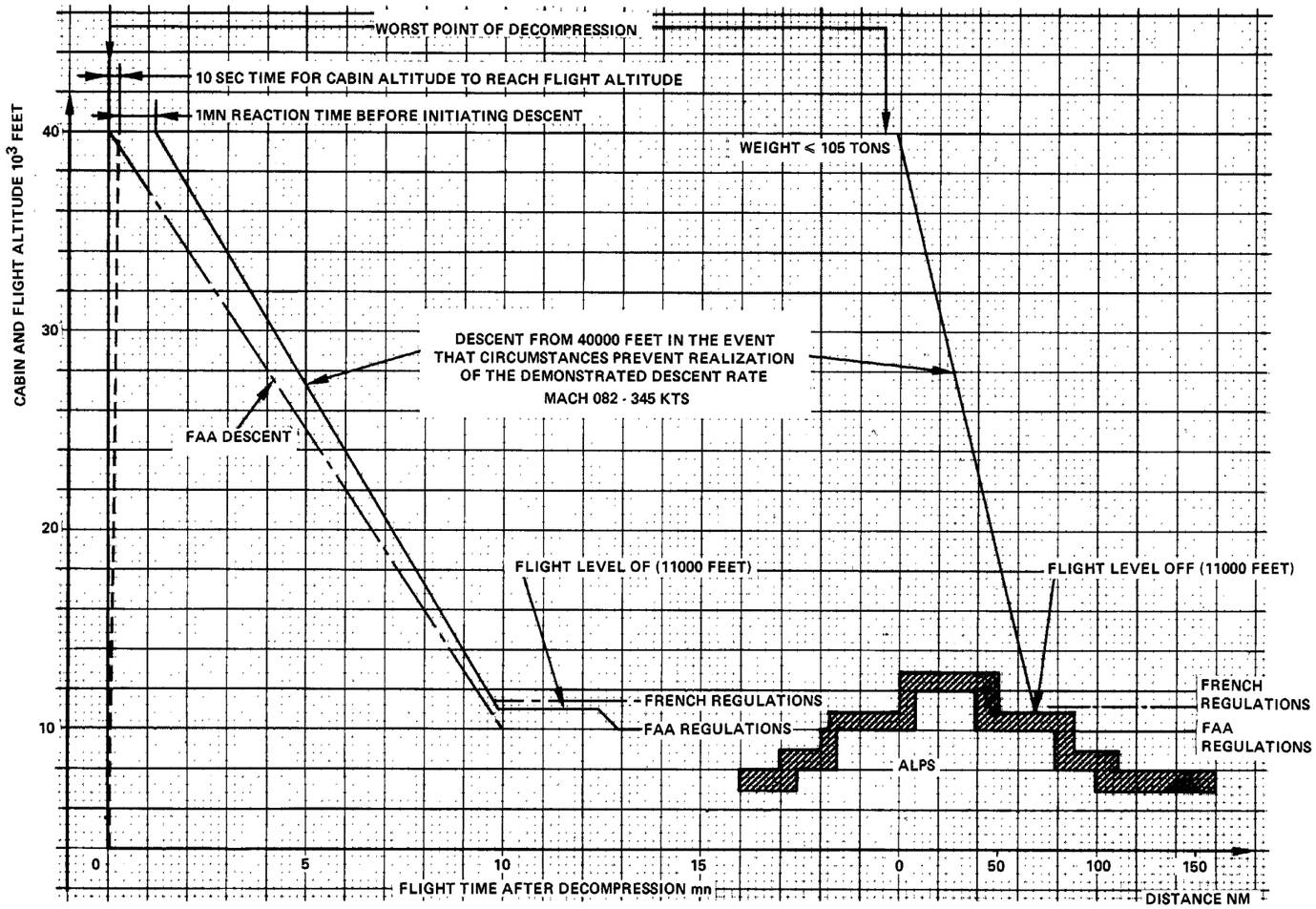
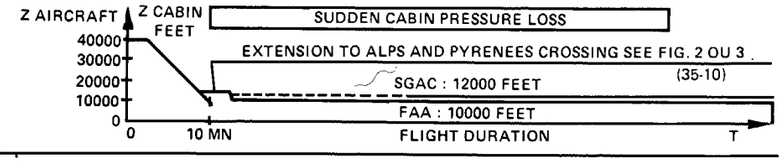
Critical Flight after Cabin Depressurization for Pyrenees
Figure 002



BMS 35 10 00 0 CBMO – 16

Critical Flight after Cabin Depressurization for Alpes
Figure 003

CHECK LIST	NORMAL FLIGHT Zc ⩽ 8000 FEET	SMOKE EMISSION Zc ⩽ 8000 FEET



Tc ÷ To ÷ Trp	PREVENTION	EMERGENCY OXYGEN
1 GASEOUS OXYGEN FIXED SYSTEM 11 CYLINDER PRESSURE CALCULATION PSI 21°C 2000 1500 1000 500 MIN. CYLINDER PRESSURE CALCULATION ACCORDING TO FIGURE 13 (35-12) FLIGHT DURATION EXPECTED AFTER CABIN PRESSURE LOSS 12 IN SITU TEST MASK 0^2 CONTROLLER SEE FIG. 14 (35-12)	CAPTAIN WHEN THE FIRST OFFICER LEAVES HIS SEAT AT Zp > 25000 FEET (FOR SGAC > 30000 FEET) GASEOUS 0^2 FIXED SYSTEM MASK : A-C-E-I-K DURATION : 15 MN FLOW : FIG. 11 (35-12) CURVE 2	FLIGHT CREW MEMBERS IN FLIGHT COMPT-1 (Tc ÷ To ÷ Trp)-1 GASEOUS 0^2 FIXED SYSTEM MASK : A-C-E-I-K DURATION : 15 MN FLOW : FIG. 11 (35-12) CURVE 2
2 GASEOUS 0^2 PORTABLE ASSY CHECK OF CYLINDER MINIMUM PRESSURE	FIRST OFFICER WHEN THE CAPTAIN LEAVES HIS SEAT AT Zp > 25000 FEET (FOR SGAC > 30000 FEET) GASEOUS 0^2 FIXED SYSTEM MASK : A-C-E-I-K DURATION : 15 MN FLOW : FIG. 11 (35-12) CURVE 2	1 CREW MEMBER Tc OR To OR Trp GASEOUS 0^2 PORTABLE ASSY MASK : B-E-H-K DURATION : 15 MN FLOW : FIG. 11 (35-12) CURVE 2
	MEDICAL OXYGEN	
	NOT REQUIRED BY REQUIREMENTS	

EMERG. OXY.	SUSTAINING OXYGEN
FLIGHT CREW MEMBERS IN FLIGHT COMPARTMENT Tc+ To+ Trp	FLIGHT CREW MEMBERS ON FLIGHT DECK DUTY Tc
GASEOUS OXYGEN FIXED SYSTEM	
MASK : A-C-E-G	NOTE 1 : A C E I K
DURATION : 10 MN FLOW : FIG. 11 (35-12) CURVE 1	DURATION : 110 MN FLOW : FIG. 11 (35-12) CURVE 2

FIRST AID OXYGEN

NOT REQUIRED BY REQUIREMENTS

LEGEND		QUANTITY
CREW MEMBERS / FLIGHT CREW MEMBERS / FLIGHT CREW MEMBERS ON FLIGHT DECK DUTY	Tc	3
CREW MEMBERS / FLIGHT CREW MEMBERS / OTHERS CREW MEMBERS DUTY / STANDBY CREW MEMBERS / WHO ARE ON CALL IN THE COCKPIT	To	1
CREW MEMBERS / FLIGHT CREW MEMBERS / OTHERS CREW MEMBERS DUTY / STANDBY CREW MEMBERS / ARE DEFINITELY GOING TO HAVE FLIGHT DECK DUTY BEFORE COMPLETING THE FLIGHT / SEATING IN THE COCKPIT	Trp	0
CREW MEMBERS / FLIGHT CREW MEMBERS / OTHERS CREW MEMBERS DUTY / STANDBY CREW MEMBERS / ARE DEFINITELY GOING TO HAVE FLIGHT DECK DUTY BEFORE COMPLETING THE FLIGHT / SEATING IN THE CABIN	Trc	0
CREW MEMBERS / CABIN ATTENDANTS / OTHERS CREW MEMBERS DUTY / STANDBY CREW MEMBERS WHO ARE ON CALL IN THE CABIN	Co	CONSIDERED AS PAX
CREW MEMBERS / CABIN ATTENDANTS / OTHERS CREW MEMBERS DUTY / REQUIRED CABIN ATTENDANTS	Cm	
STANDBY CREW MEMBERS NOT ON CALL AND WILL NOT BE ON FLIGHT DECK DUTY DURING THE REMAINDER OF FLIGHT	S	

MASK CHARACTERISTICS			
TYPE OF MASK		ORAL NASAL	A
		FULL FACE	B
MASK DONNING		QUICK DONNING IN LESS THAN 5 SEC	C
		AUTOMATIC DONNING	D
PRESSURE REGULATOR CARACTERISTICS	FLOW CARACTERISTICS	DEMAND FLOW FLOW STOPPED ON EXPIRATION	E
		CONTINUOUS FLOW FLOW SAVED ON EXPIRATION	F
	0^2 AND OVERPRESSURE CARACTERISTICS	100 % AT ANY ALTITUDE WITHOUT OVERPRESSURE	G
		100 % AT ANY ALTITUDE WITH MANUAL OVERPRESSURE	H
		AIR/0^2 DILUTION AUTO 100 % 0^2 ABOVE 30000 FEET	I
		AUTOMATIC ALTIMETRIC OVERPRESSURE	J
MICROPHONE		HIGH LEVEL	K
		LOW LEVEL	L

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Oxygen Supply Conditions
Figure 004

(Ref. Fig. 005)

R **ON A/C 105-200,

R (Ref. Fig. 006)

R **ON A/C 001-104,

(Ref. Fig. 007)

R **ON A/C 105-200,

R (Ref. Fig. 008)

R **ON A/C ALL

B. System Definition

(1)Description

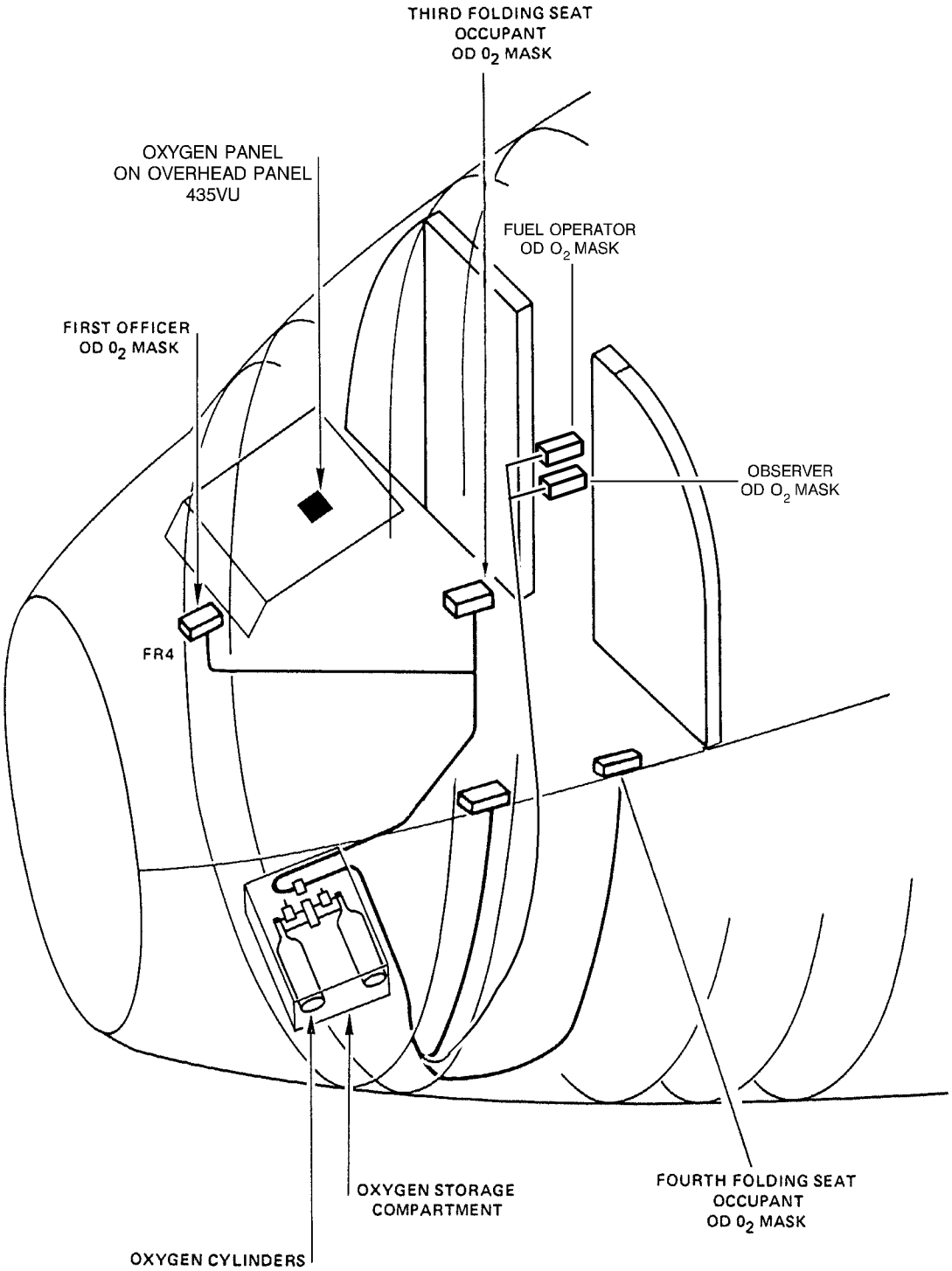
The fixed oxygen system supplying the flight crew members is composed of :

- one oxygen cylinder, 115 cu. feet (3255 l) in NTPD conditions (NTPD = Normal Temperature : 21°C, Pressure 1013 mb, Dry) Nominal charge : 1850 psig (127 bars).
  This cylinder is stored in a partially sealed, ventilated compartment located forward of the avionics compartment and perpendicular to the aircraft centerline.
  - a HP transmitter/pressure regulator assembly directly connected to the cylinder and which regulates the downstream pressure to the nominal value of 5.38 ± 0.55 bars (78 ± 8 psig)
  - a HP and LP overpressure safety system directly connected to a discharge indicator visible from outside the aircraft
  - a supply solenoid valve which enables supply or shut off of the distribution system by direct action of the crew on the flight compartment control and monitoring panel.
  - a supply manifold on which are connected :
    . the two RH and LH distribution systems
    . a LP oxygen transmitter
    . a test port for leakage tests
  - quick donning oxygen masks for each crew member

(2)Control and monitoring

The system is controlled and monitored from panel 435VU
This panel includes :

- a LO PR SUPPLY (OFF) pushbutton switch which controls opening or closing of the oxygen supply valve
- an HP indicator displaying cylinder pressure
- an LP indicator displaying pressure existing in the distribution systems.



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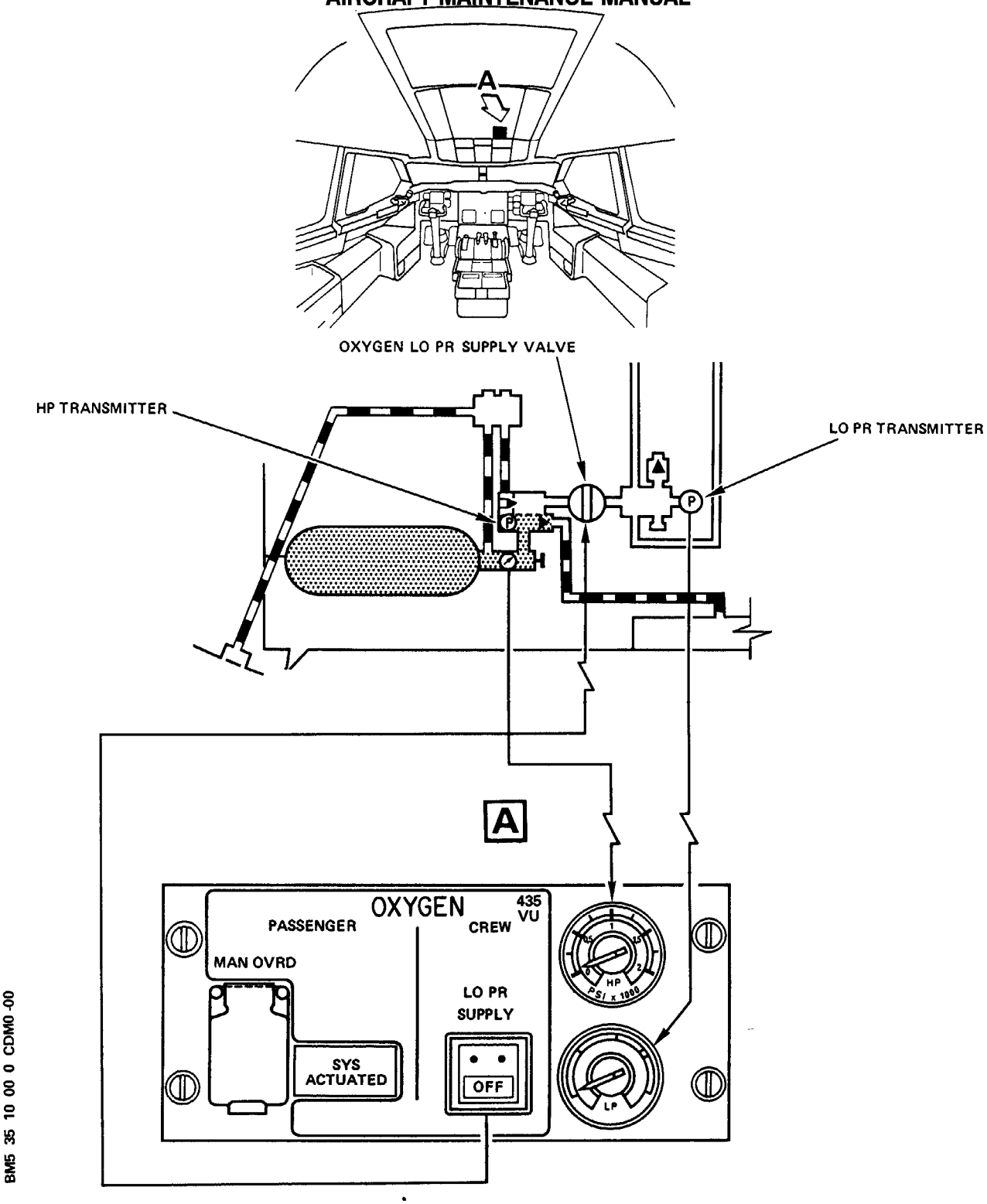
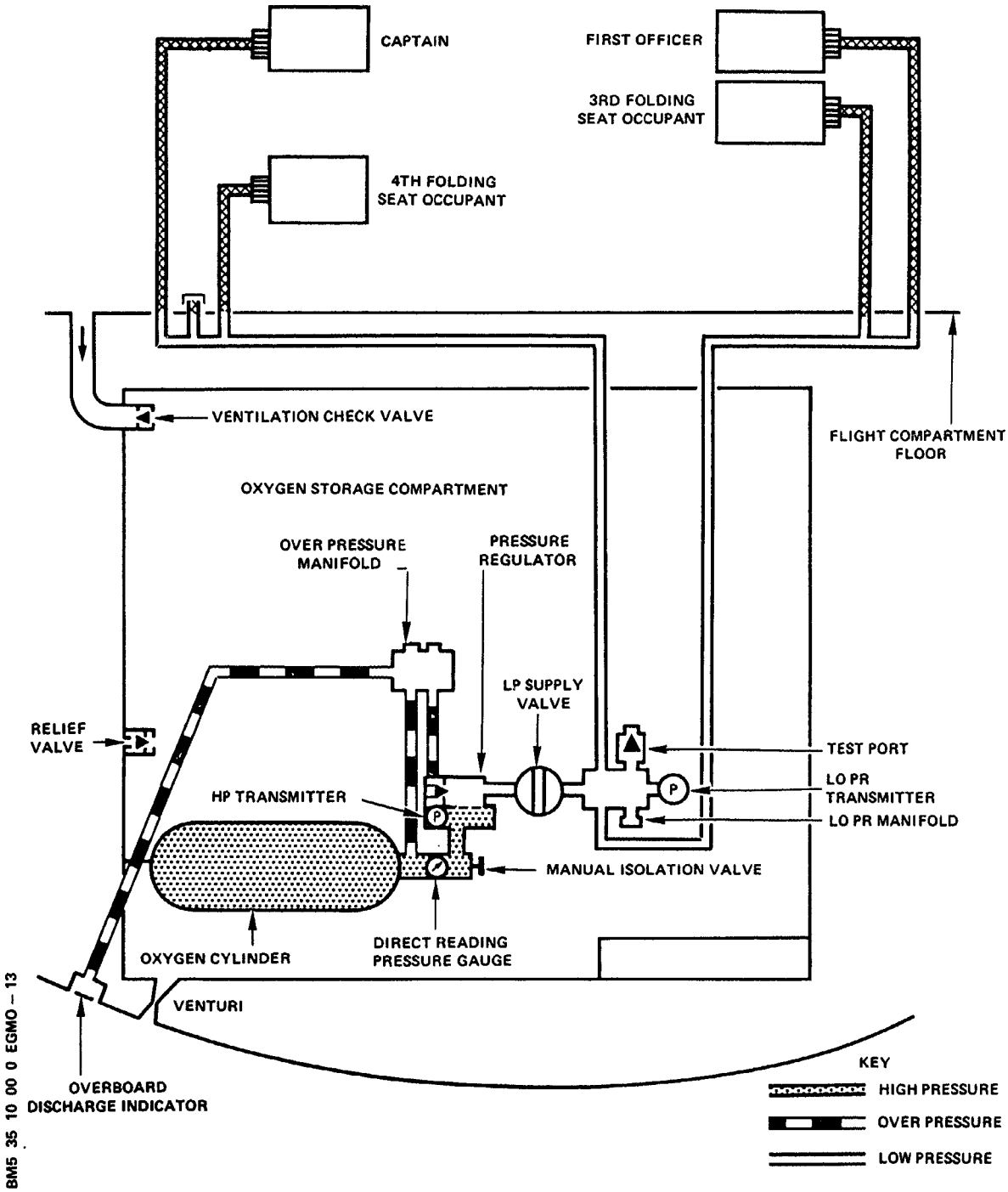
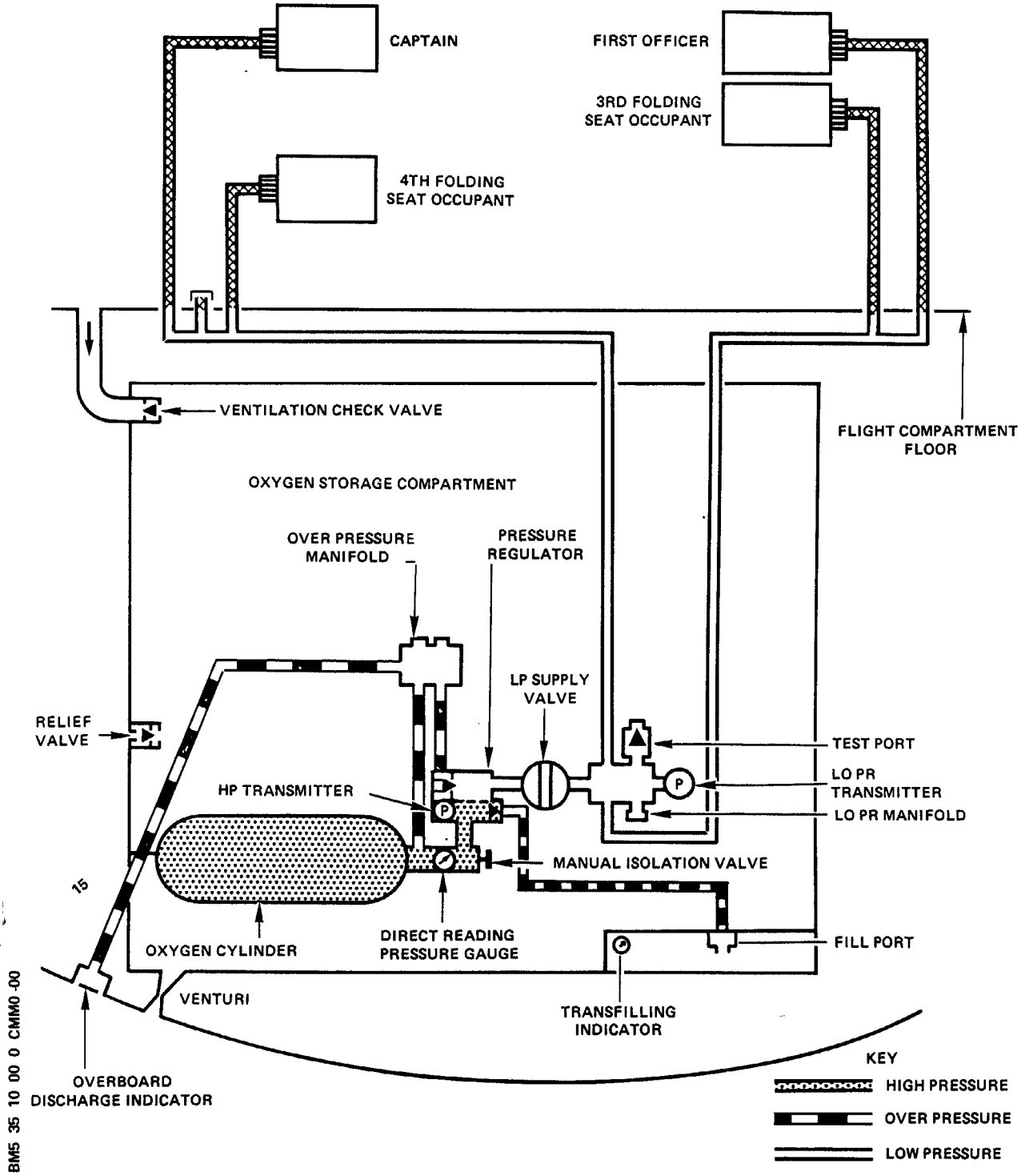
Crew Oxygen System-Instrument Panel
Figure 005



Crew Oxygen System-Instrument Panel
Figure 006



Crew Oxygen System-Functional Diagram
Figure 007



Crew Oxygen System-Functional Diagram
Figure 008

R

R CREW OXYGEN SYSTEM - ADJUSTMENT/TEST

R 1. Leakage Test of LP Oxygen System (with dry nitrogen)

A. Reason for the Job
This test enables the LP oxygen system to be checked for leaks.
The test of the LP oxygen system is performed with dry nitrogen which has the same properties as gaseous oxygen.

WARNING : OIL AND GREASE PRESENT A FIRE HAZARD WHEN IN CONTACT WITH OXYGEN THEREFORE TOOLS AND HANDS MUST BE CLEAN.

B. Equipment and Materials

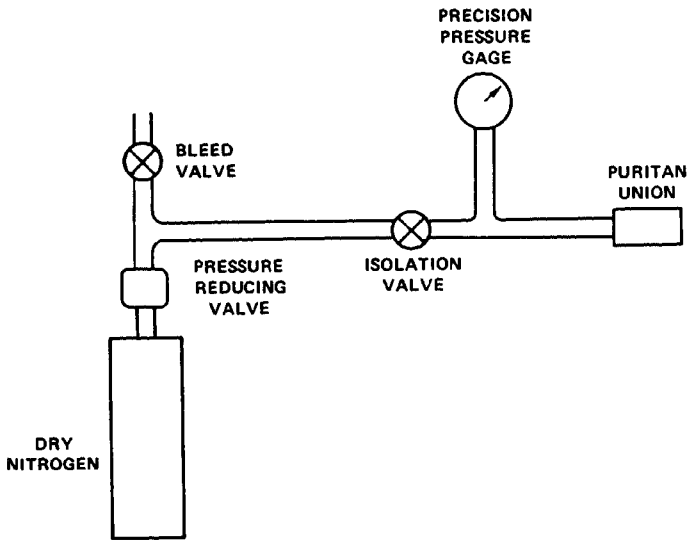
ITEM	DESIGNATION
A.	Access Platform 2.60 m (8 ft. 6 in.)
B.	Dry Nitrogen Source
C.	Pressure Reducing Valve
D.	Bleed Valve
E.	Two Isolation Valves
F.	Two Pressure Gages - Range : 0 to 150 psi
G.	PURITAN Unions 110-111-36 New Seals
H.	Blanking Plugs/Caps
J. Material No. 05-004	Special Materials (Ref. 20-31-00)
Referenced Procedure - 24-41-00, P. Block 301	AC External Power Control

C. Job Set-Up
(Ref. Fig. 501)
(1)Position access platform.
(2)Connect electrical ground power unit and energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(3)Make certain that electronics rack ventilation is correct.
(4)Open forward cargo compartment door.

(5)Open access door 132AZ.
(6)Open oxygen cylinder storage compartment access door.
(7)Close manual cylinder valve.
(8)Check that the following circuit breaker is closed :

PANEL	SERVICE	IDENT.	LOCATION
22VU	CREW OXYGEN	18HT	208/B28

(9)On CREW OXYGEN panel 435VU, press LO PR SUPPLY pushbutton switch (ON position).
(10)Bleed oxygen systems, using a crew mask and operating the RESET TEST control slide until LP indicator is at its lowest.



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DM5 – 04

Test Installation
Figure 501

(11)Set up test installation as per figure.
(12)On regulator, disconnect pipe leading to LP discharge indicator and blank port. Also blank open end of pipe.
(13)Connect test installation to test connector 110.

D. Tests
(1)Open dry nitrogen source and regulate air pressure to 130 psi (9 bars) using pressure-reducing valve.
(2)Close isolation valve and nitrogen source.
(3)System shall remain pressurized for half an hour minimum.
No leak is permitted.
If a leak is detected, trace its origin using Material No. 05-004 and replace faulty component.
(4)Open isolation valve.
(5)Open bleed valve.

E. Close-Up
(1)Disconnect test installation. Connect pipe to regulator.
WARNING : DO NOT FORGET TO INSTALL A NEW SEAL ON UNION.
(2)Open cylinder manual valve very slowly, 3 to 4 turns.
(3)Wait approximately 90 s for system pressure to stabilize.
(4)Fully open the valve.
(5)Bleed system pipes :
(a)On each mask stowage box, simultaneously press (1 mn approx.) **TEST-RESET** control slide and **PRESS TO TEST** button on mask regulator.
NOTE : Absence of flow at end of test can be checked by listening to the gas flow noise in the headset.
(6)Close cylinder stowage compartment.
(7)On **CREW OXYGEN** panel 435VU, release **LO PR SUPPLY** pushbutton switch (OFF position).
(8)De-energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(9)Close access door.
(10)Remove access platform.

2. Leakage Test of LP Oxygen System (with oxygen cylinder source)

A. Reason for the Job
This test enables the LP oxygen system to be checked for leaks.
The test of the LP oxygen system is performed with oxygen cylinder source.
WARNING : OIL AND GREASE PRESENT A FIRE HAZARD WHEN IN CONTACT WITH OXYGEN THEREFORE TOOLS AND HANDS MUST BE CLEAN.

B. Equipment and Materials

ITEM	DESIGNATION
A.	Access Platform 2.60 m (8 ft. 6 in.)
B.	Pressure Gage Range : 0 to 150 psi
C. Material No. 05-004	Special Materials (Ref. 20-31-00)
Referenced Procedure - 24-41-00, P. Block 301	AC External Power Control

C. Job Set-Up
(1)Position access platform.
(2)Connect electrical ground power unit and energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(3)Make certain that electronics racks ventilation is correct.
(4)Open forward cargo compartment door.
(5)Open access door 132AZ.
(6)Open oxygen storage compartment access door.
(7)Close manual cylinder valve.
(8)Check that the following circuit breaker is closed :

PANEL	SERVICE	IDENT.	LOCATION
22VU	CREW OXYGEN	18HT	208/B28

(9)On CREW OXYGEN panel 435VU press to release LO PR SUPPLY pushbutton switch (ON position).
(10)Bleed oxygen system, using a crew mask and operate the RESET TEST control slide until LP indicator is at its lowest.
(11)Remove blanking cap from the test port and install the pressure gage.

D. Test
(1)Open manual cylinder valve very slowly 3 to 4 turns.
(2)Wait approximately 90 s for system pressure to stabilize.
(3)Fully open manual cylinder valve and let the pressure become stable.
(4)Close cylinder valve.
(5)On the pressure gage measure the initial pressure (Pi) on LP oxygen system (between 70 and 94 psi).
(6)On the ECAM display unit measure the outside air temperature (OAT) and the cockpit temperature.
(7)Calculate the initial temperature as follows :

$$Ti = \frac{OAT + CKPT\ Temp.}{2}$$

(8)Let the system pressurize for an hour and measure Final Pressure (PF).
(9)Measure again the outside air temperature and the cockpit temperature.
(10)Calculate the final temperature :

$$Tf = \frac{OAT + CKPT\ Temp.}{2}$$

NOTE : The initial pressure and the final pressure must be the same within 2 psi of tolerance.
If the temperature has changed during the end of the test, correct as follows :

$$Pf = Pi \times \frac{273 + Tf}{273 + Ti}$$

Pi = initial Pressure
Pf = final Pressure
Tf = final Temperature in °C
Ti = initial Temperature in °C

(11)After test, make sure that the pressure read on the pressure gage is stable (within 2 psi of tolerance).
(12)If the pressure decrease is out of tolerance, do a leak test :

- wipe off special Material 05-004 from each union and replace faulty component.

E. Close-Up
(1)Remove pressure gage and install blanking cap on test port.
(2)Open cylinder manual valve slowly 3 to 4 turns.
(3)Wait approximately 90 s for system pressure to stabilize.
(4)Fully open manual valve.
(5)Bleed system pipes :
(a)On each mask stowage box, simultaneously press (1 mn approx.) **TEST-RESET** control slide and **PRESS TO TEST** button on mask regulator.
NOTE : Absence of flow at end of test can be checked by listening to the gas flow noise in the headset.
(6)Close cylinder stowage compartment.
(7)On **CREW OXYGEN** panel 435VU, release **LO PR SUPPLY** pushbutton switch (OFF position).
(8)De-energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(9)Close access door.
(10)Remove access platform.

3. Leakage Test of the LP Oxygen System for the Crew (with the VARIAN HELITEST Tool)
This procedure lets you find the leakage of a component or part of the crew oxygen system.

A. Reason for the Job
This test must be performed when leaks have been detected in Para. 1 and 2.
WARNING : IN EVENT OF SERIOUS LEAKS, IT IS NECESSARY TO VENTILATE THE AREA TO PREVENT THE INSTRUMENT FROM SATURATING.
WARNING : OIL AND GREASE PRESENT A FIRE HAZARD WHEN IN CONTACT WITH OXYGEN THEREFORE TOOLS AND HANDS MUST BE CLEAN.

B. Equipment and Materials

	ITEM	DESIGNATION
	A.	Access Platform 2.60 m (8 ft 6 in.)
	B. 969-4200	Oxygen tooling Kit
R	or	
R	DET-OX-4200	HELITEST Aero Kit
	C. 969-4000	HELITEST Aero Kit
R	or	
R	DET-OX-4200	HELITEST Aero Kit
	D.	Blanking Plugs/Caps
	E. Material No. 05-004	Special Materials (Ref. 20-31-00)
	Referenced Procedures	
	- 24-41-00, P. Block 301	AC External Power Control
	- 35-11-00, P. Block 401	Oxygen Storage Cylinder

C. Job Set-Up

(Ref. Fig. 502)
(1)Position access platform at forward cargo compartment door.
(2)Open forward cargo compartment door.
(3)Open access door (132AZ).
(4)Open oxygen storage compartment access door.
(5)Check that oxygen supply valve is open.
(6)Close manual cylinder valve.
(7)Energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(8)Make certain that electronics racks ventilation is correct.
(9)Check that the following circuit breaker is closed :

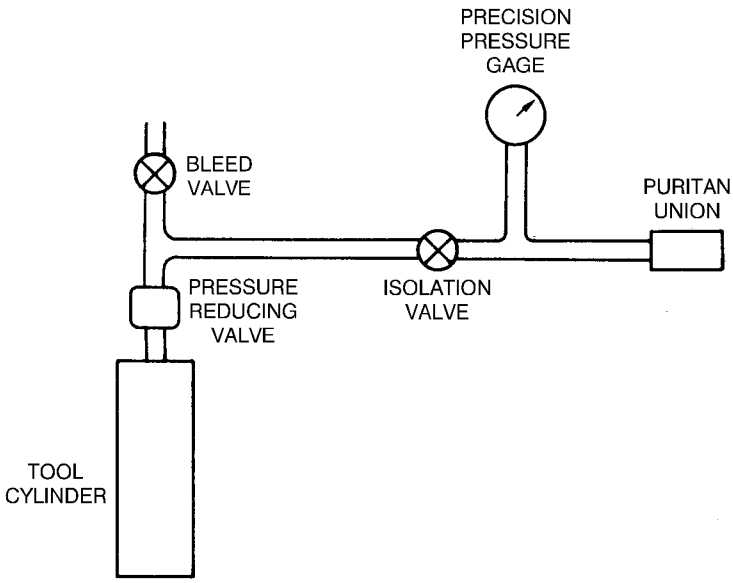
PANEL	SERVICE	IDENT.	LOCATION
22VU	CREW OXYGEN	18HT	208/B28

D. Bleeding
(1)On CREW OXYGEN panel 435VU, press LO PR SUPPLY pushbutton switch (ON position).
(2)On each mask stowage box, simultaneously press (1 mn approx.) RESET TEST control slide and PRESS TO TEST button on mask regulator.

E. Preparation before the Test
(1)Remove the oxygen cylinder (Ref. 35-11-11, P. Block 401).
R (2)Install and connect the HELITEST Aero kit 969-4000 and the oxygen
R tooling kit 969-4200 or the HELITEST Aero kit DET-OX-4200.
The tool cylinder contains a gaseous mix with 10 % helium and 90 % nitrogen charged to 1840 psi (127 bars).
(3)Supply the oxygen system with the tool cylinder in the normal condition (open the valve of the tool cylinder).
(a)On all the oxygen mask stowage boxes :
Press RESET TEST control slide and PRESS TO TEST button on mask regulator a sufficient number of times (to fill the oxygen system with the gaseous mix).

F. Test
R (1)Calibrate the HELITEST tool in PPM.
(2)Do a check for leaks with the leak detector.
(3)Measure the values and compare with the table below :
- maximum leak values permitted for equipment and items of the flight compartment oxygen system :

Equipment	Maximum leak permitted with a Mixture of 10 % Helium PPM
Coupling	50
Low Press Solenoid Valve	300
Regulator/Transmitter	300
Low Press Flexible Hose	100
Oxygen Mask Stowage Box (stowage box closed)	500



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Test Installation
Figure 502

If the values are more than the tolerance value, replace the defective equipment.

G. Close-Up

(1) Bleed the oxygen system

(a) Close the valve of the tool cylinder.

(b) On one of the oxygen mask stowage boxes :

Press (1 mn approx.) **RESET TEST** control slide and **PRESS TO TEST** button on mask regulator.

NOTE : Make certain that oxygen cylinder valve is open at the end of the procedure.

R (2) Disconnect the tool equipment.

(3) Install the oxygen cylinder (Ref. 35-11-11, P. Block 401).

(4) Fully open oxygen cylinder valve.

(5) Close the oxygen compartment access door.

(6) On each mask stowage box simultaneously press (1 mn approx.) **RESET TEST** control slide and **PRESS TO TEST** button on mask regulator (to fill the system with oxygen).

(7) On **CREW OXYGEN** panel 435VU release **LO PR SUPPLY** pushbutton switch (**OFF** position).

(8) De-energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).

(9) Make certain that working area is clean and clear of tools and miscellaneous items of equipment.

(10) Close the access door.

(11) Remove the access platform.

CREW OXYGEN SYSTEM - INSPECTION/CHECK

1. Reason for the Job

A. To remove and install regulator/HP transmitter for workshop check.

2. Equipment and Materials

ITEM	DESIGNATION
Referenced Procedure - 35-11-31, P. Block 401	Oxygen HP Transmitter/Pressure Regulator

3. Procedure

A. Workshop Procedure
(1)Remove oxygen HP transmitter/pressure regulator (Ref. 35-11-31, P. Block 401).
(2)Send it to workshop check.
(3)Install oxygen HP transmitter/pressure regulator (Ref. 35-11-31, P. Block 401).

1. Oxygen High Pressure Source

R **ON A/C 001-104,

(Ref. Fig. 001)

R **ON A/C 105-200,

(Ref. Fig. 002)

R **ON A/C ALL

The flight crew oxygen is supplied from a high pressure oxygen cylinder.
The main characteristics are as follows :
- capacity 3255 l (115 cu. ft.).
- nominal charge : 127 bars (1850 psig)
It is made up of a valve assembly including :
- a slow opening valve, the seats of which are of the metal/metal type, thus avoiding ignitions (explosions)
- a direct reading pressure gauge, indicating cylinder pressure, with valve open or closed.
- an overpressure safety port with a discharge indicator (frangible disc) limiting the cylinder pressure to 172.4 - 186.2 bars (2500 - 2700 psig). Oxygen is discharged overboard via a safety system.
- a high pressure oxygen bleed port fitted with a special union.
This cylinder is located in the avionics compartment between FR 4 and FR 7 perpendicularly to the aircraft centerline. It is placed in a cradle and secured by two quick disconnect metallic clamps on the cylindrical part. Attachments are designed to resist crash loads considered to be 10 g in all directions.

2. High and Low Pressure Supply

R **ON A/C 001-104,

(Ref. Fig. 003)

R **ON A/C 105-200,

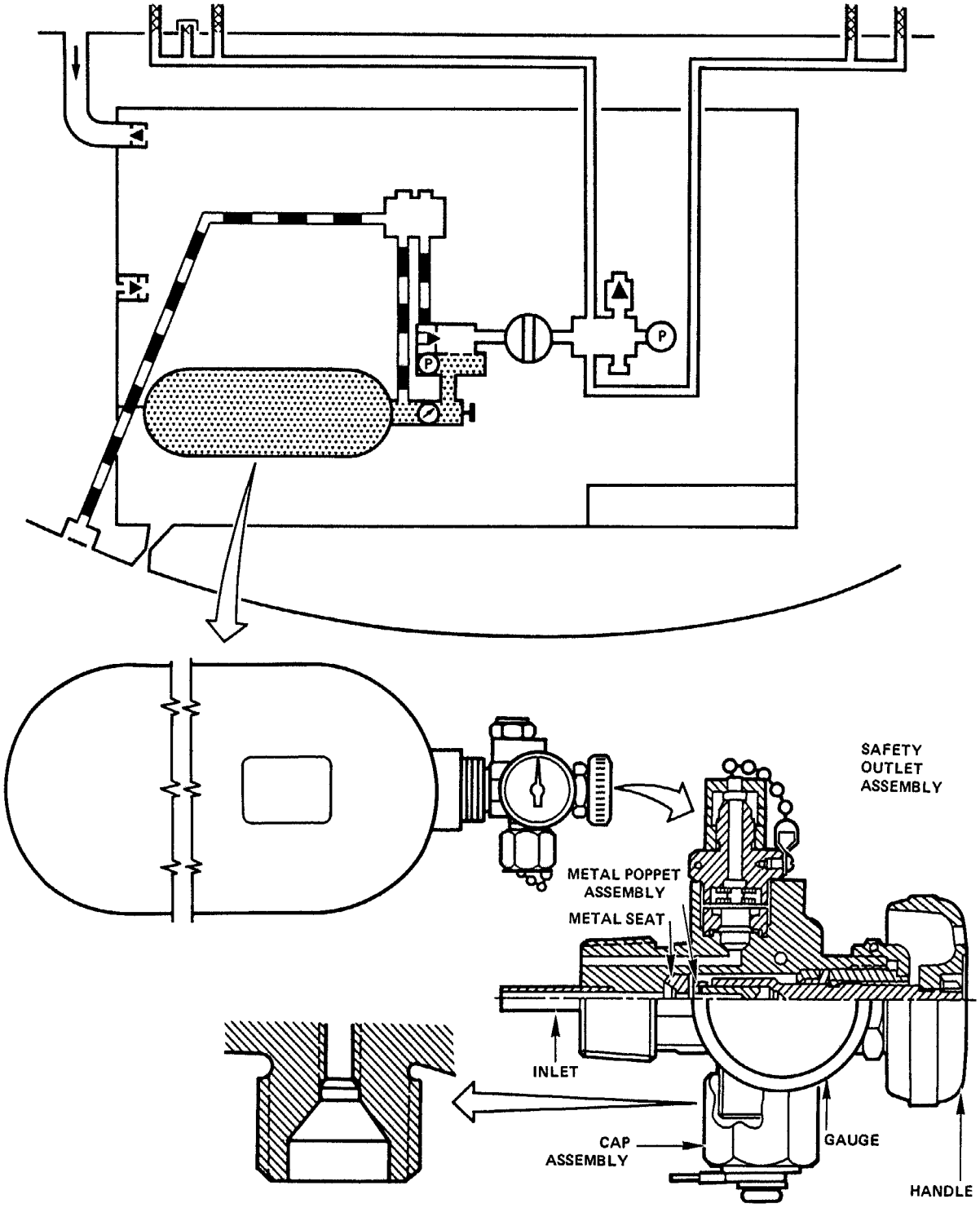
(Ref. Fig. 004)

R **ON A/C 001-104,

(Ref. Fig. 005)

R **ON A/C 105-200,

(Ref. Fig. 006)



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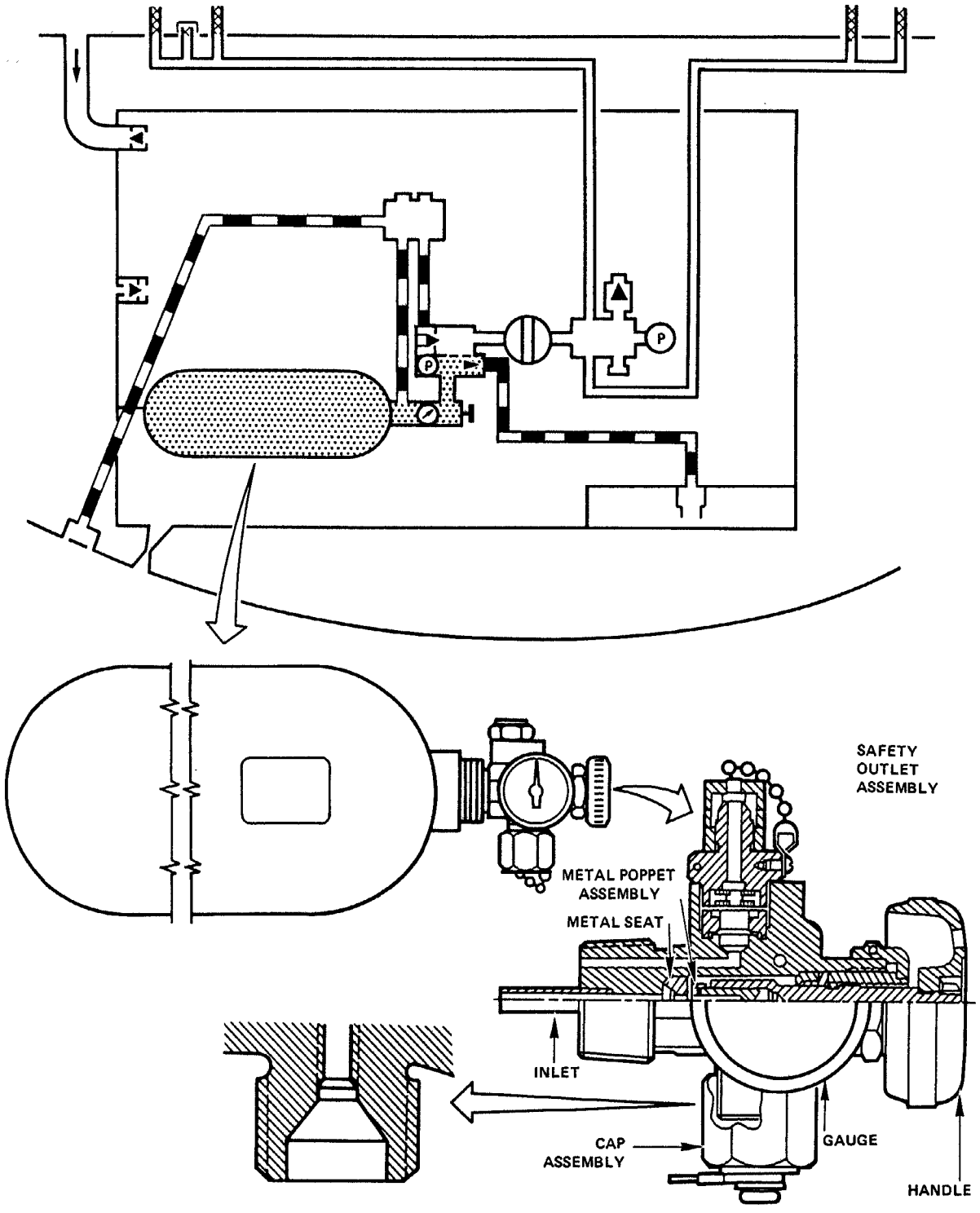
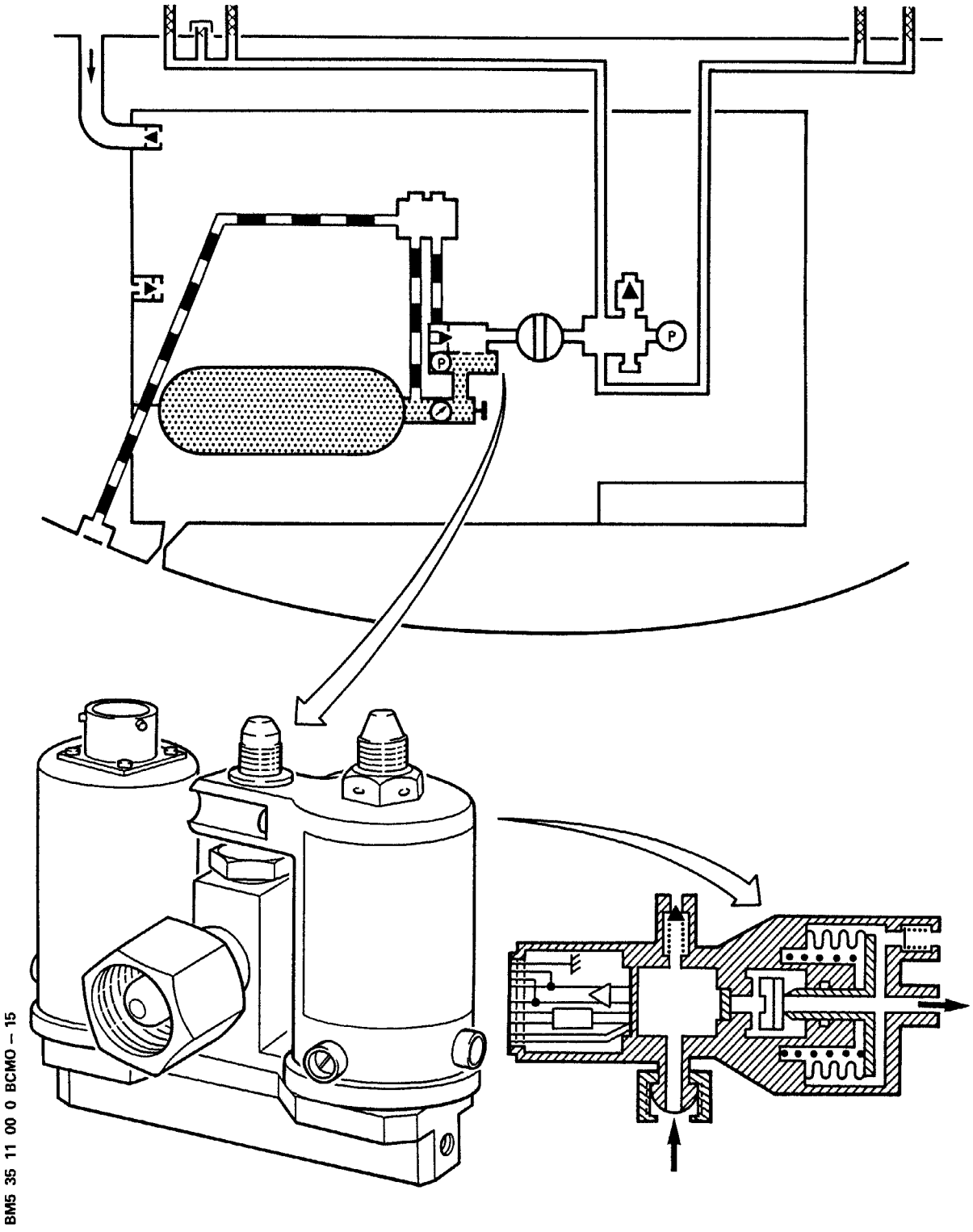
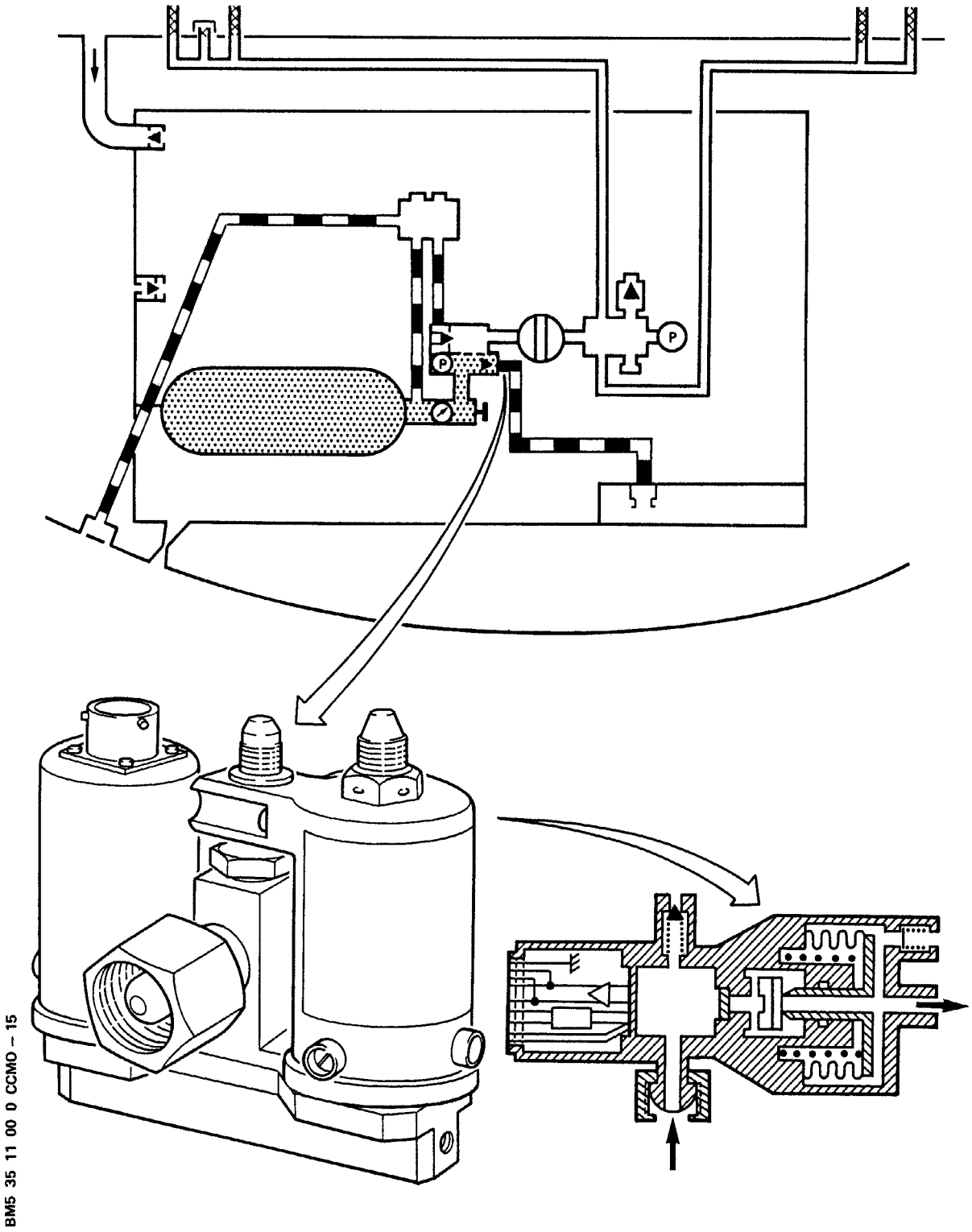
Oxygen Cylinder
Figure 001



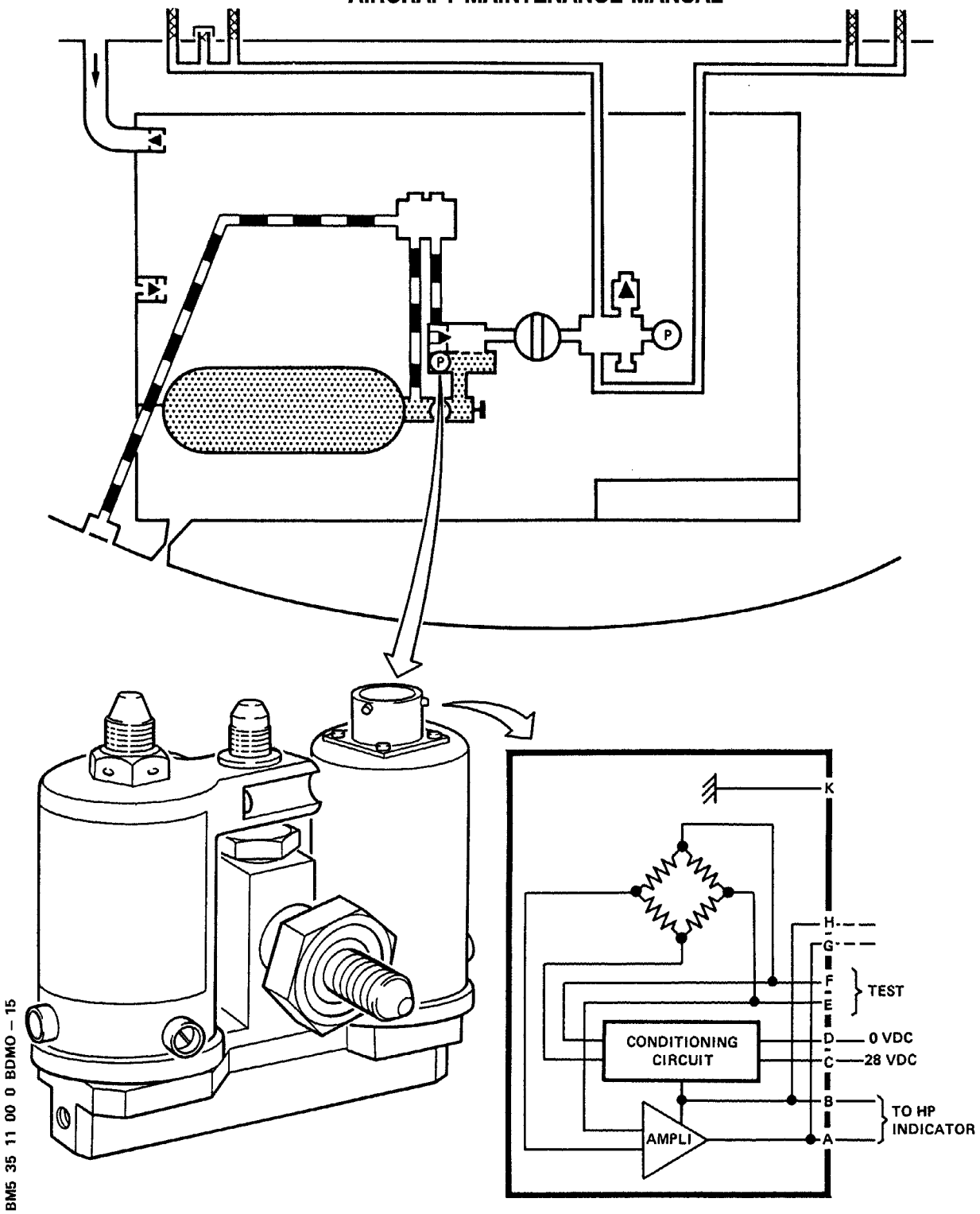
Oxygen Cylinder
Figure 002



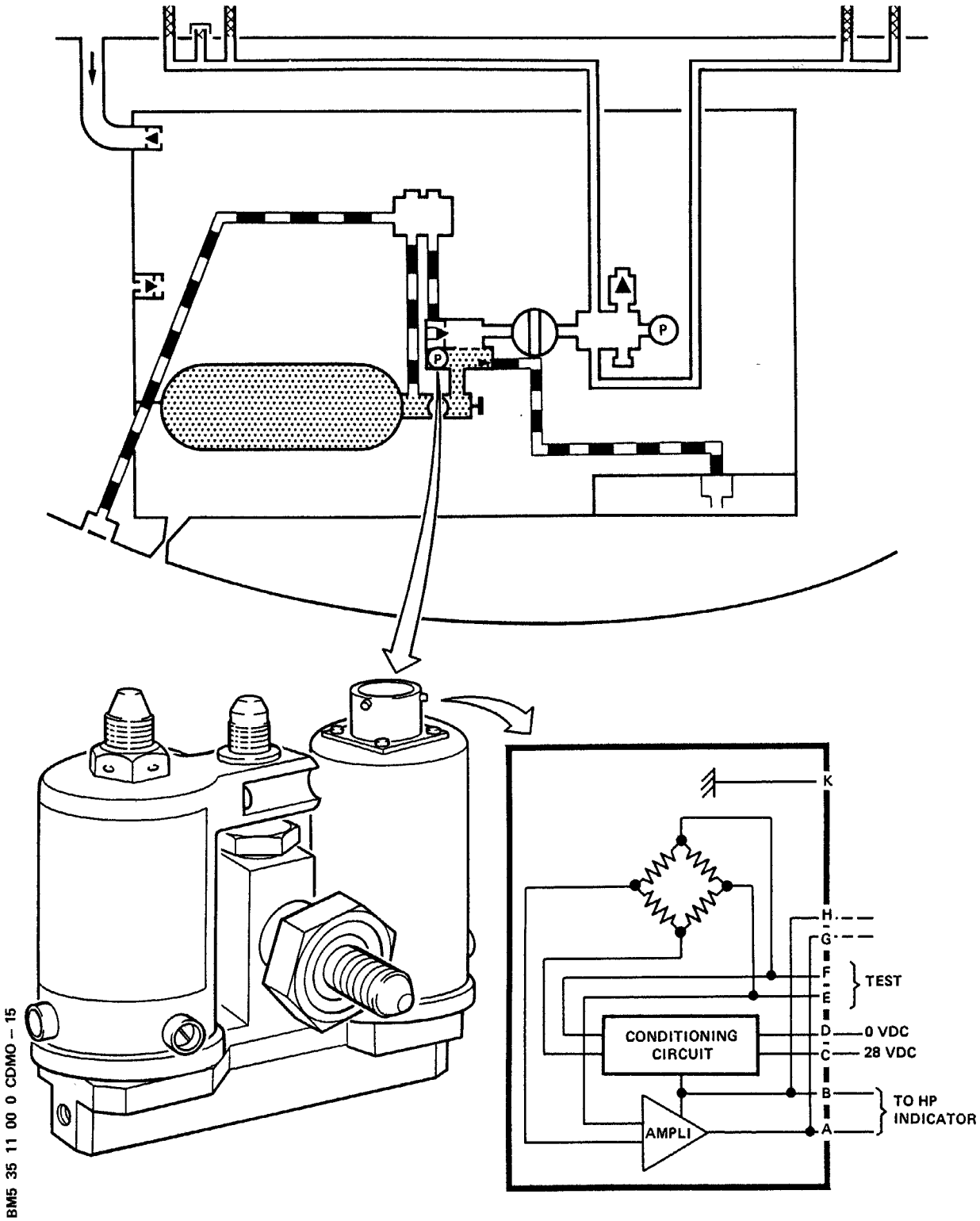
Pressure Regulator
Figure 003



Pressure Regulator
Figure 004



HP Pressure Transmitter
Figure 005



HP Pressure Transmitter
Figure 006

R **ON A/C ALL

(1)A HP regulator/transmitter assembly is directly connected to the cylinder via the special female coupling which is part of it.
This configuration limits the high pressure at the inlet coupling and at the relevant stage of the regulator.
The HP regulator/transmitter is composed of two stages :

(a)The high pressure stage including :

. A high pressure detection by an integrated transducer sending an electrical signal to a remote indicator located on the control and monitoring panel in the flight compartment.

(b)The low pressure stage including :

. A downstream pressure regulation at the nominal value of 5.38 ± 0.55 bars (78 ± 8 psig) for a flow of 300 liters/mn and for an upstream pressure of 127 bars (1850 psig.)

NOTE : The absolute regulated pressure will not exceed 6.48 bars (94 psig) for all flow or pressure variations within the following limits :

. flow variation : 10 to 300 l/mn.

. pressure variation : 6.9 to 140 bars (100 to 2025 psig).

. a port with an integrated pressure relief valve limiting the supply pressure as follows

. beginning of opening : 8 + 0, - 0.5 bars (120 + 0, - 7 psig)

. maximum overpressure 12 bars (174 psig) for a flow of 300 liters/mn.

The oxygen released by the valve is discharged overboard via a safety system.

3. High and Low Pressure Safety

R **ON A/C 001-104,

(Ref. Fig. 007)

R **ON A/C 105-200,

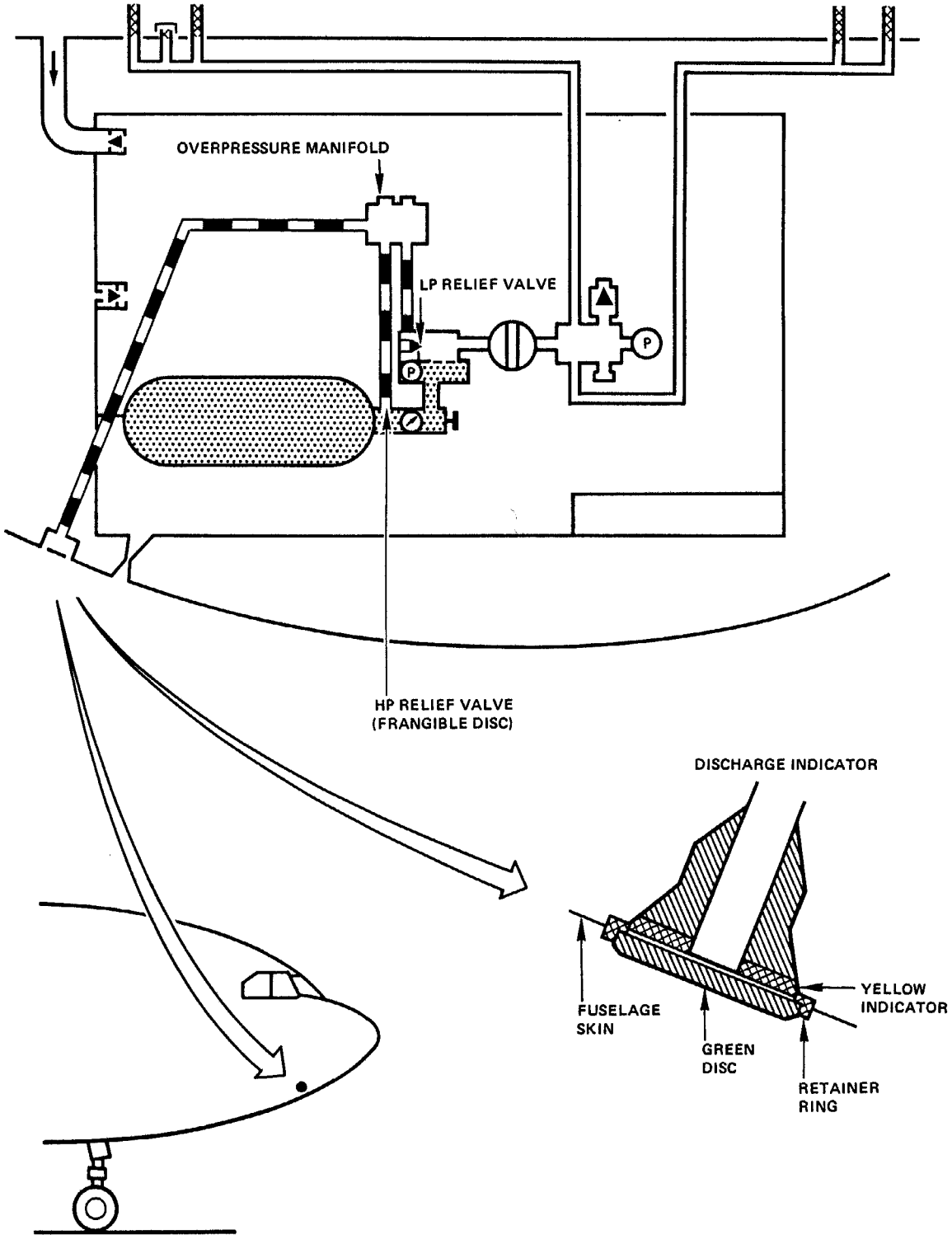
(Ref. Fig. 008)

R **ON A/C ALL

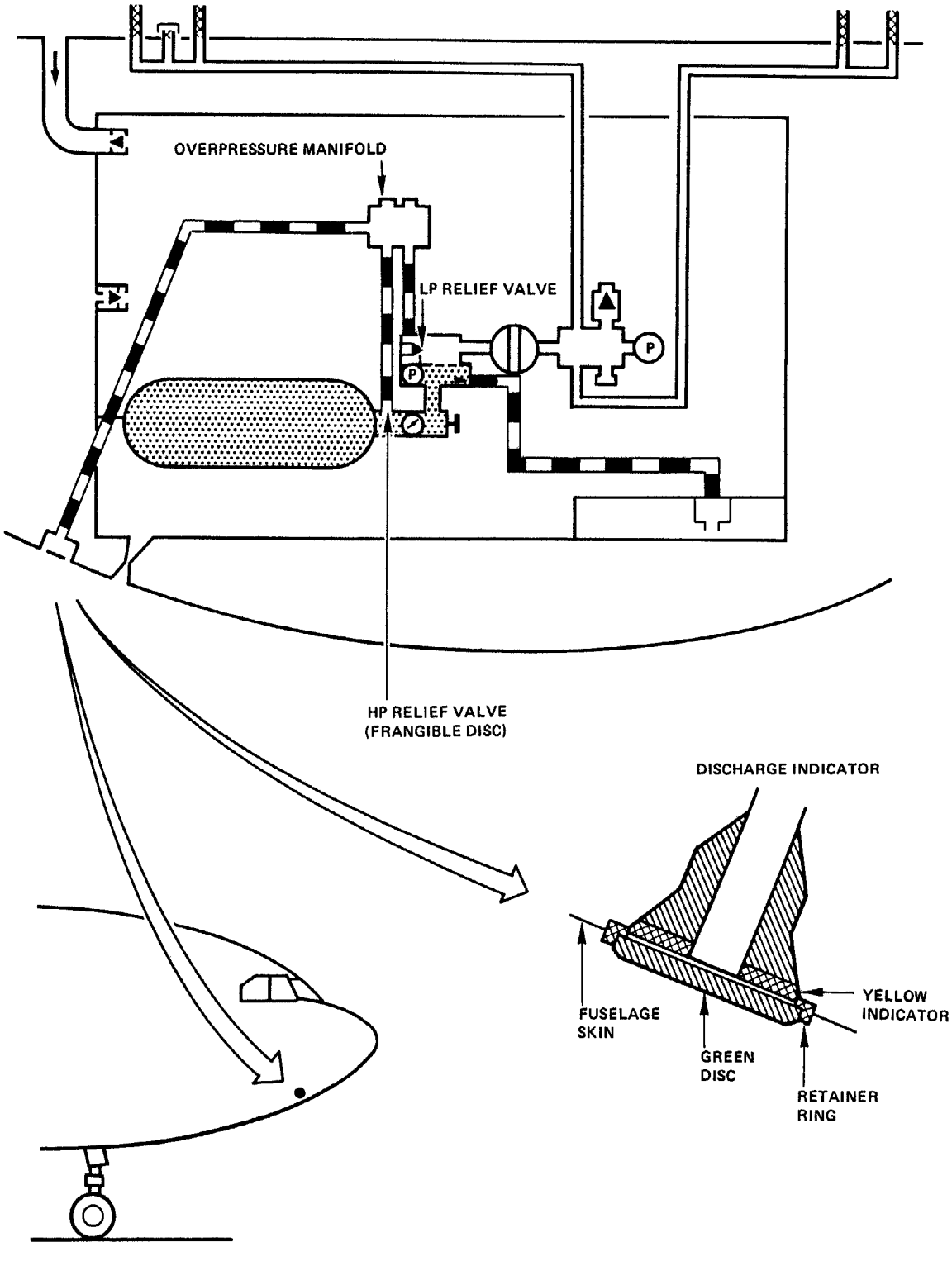
The cylinder overpressure safety port and the low pressure stage overpressure safety port of the HP transmitter/pressure regulator/HP indicator are connected to a safety discharge manifold via flexible hoses. The discharge manifold includes drop forged adapters and a plenum chamber. To this manifold is connected a pipe at one end of which is mounted a discharge indicator level with fuselage wall.
The discharge indicator is made of a green plastic blow out disc, visible from outside the aircraft, which is ejected from its housing, when submitted to any pressure exceeding 1.38 bars (20 psig), thus revealing the yellow color inside the indicator body.

4. Supply of Oxygen Source
The oxygen source is supplied by replacing the oxygen cylinder.
To perform cylinder replacement it is necessary to release the supports and disconnect at the level of cylinder :
. the overpressure safety line
. the HP transmitter/regulator after isolation of the HP system.
These cylinder removal and withdrawal operations are facilitated by the flexible hoses. Special precautions must be taken ; in particular, the free ends of the lines must be blanked with protective caps pending installation of the spare cylinder.

5. Partially-Sealed Storage Compartment
Located in the avionics compartment, between FR 4 and FR 7, aligned with and perpendicular to the aircraft centerline this partially-sealed compartment is flame resistant. It can be reached from the avionics compartment through an access door secured by quick-disconnect screws. This door is equipped with two windows enabling the cylinder pressure gauge to be read.
These windows are protected by screwed covers. The compartment is ventilated in flight by air from the cabin which is discharged overboard through a venturi.
The ventilation check valve enables a slight negative pressure ($\leq$ 5 mbars) (0.0725 psig) to be maintained in normal ventilation conditions in the compartment.
The relief valve enables the compartment overpressure to be limited to 60 mbars (0.87 psig).
This ventilation enables safety to be maintained at an acceptable level in the event of an accidental leakage which might occur in the generation line.



High and Low Pressure Safety
Figure 007



High and Low Pressure Safety
Figure 008

OXYGEN STORAGE - INSPECTION/CHECK

1. Reason for the Job

A. To check the condition of the oxygen circuits in the oxygen storage compartment.

2. Equipment and Materials

ITEM	DESIGNATION
A.	Access Platform 2 m (6 ft 7 in.)

3. Procedure

WARNING : PERSONNEL IN CHARGE OF CARRYING OUT THE ACTIONS BELOW MUST BE AWARE OF THE RISKS INVOLVED IN HANDLING OXYGEN WHICH ENHANCES COMBUSTION IN THE PRESENCE OF FUEL, AND BECOMES EXPLOSIVE IN THE PRESENCE OF HYDROCARBONS, (FUELS, LUBRICANTS).

A. Job Set-Up
(1)Position access platform.
(2)Open access door 121BL.
(3)Open oxygen storage compartment access door.

B. Inspection/Check of Oxygen Storage Compartment
(1)Check that cylinder pressure is in normal range, and sufficient for the next flight.
(2)Check attachment of cylinders to their cradle.
(3)Check attachment of regulator to each cylinder.
(4)Check attachment of rigid lines to aircraft structure, and attachment of check valves to storage compartment structure.
(5)Outside the aircraft, check that green overpressure indicator disc is visible.

R **ON A/C 105-200,

C. Service Panel
(1)Check condition of oxygen filling connector.
(2)Check condition of sealed window.
(3)Check that HP pressure gage pointers are at zero.

R **ON A/C 001-104,

C. Not applicable

R **ON A/C ALL

D. Electrical circuit
(1)Check external condition of electrical connectors and cable looms in storage compartment.

E. Close-Up
(1)Close oxygen compartment access door.
(2)Close access door 121BL.
(3)Remove access platform.

OXYGEN STORAGE COMPARTMENT VENTILATION VENTURI CLEANING/PAINTING

WARNING : OIL AND GREASES PRESENT A FIRE HAZARD WHEN IN CONTACT WITH OXYGEN, THEREFORE TOOLS AND HANDS MUST BE CLEAN.

1. Reason for the Job

To eliminate any trace of dirt in the ventilation venturi of the oxygen storage compartment.

2. Equipment and Materials

ITEM	DESIGNATION
A.	Access Platform 2 m (6 ft 7 in.)
B. Material No. 11-010	Cleaning Agent

3. Procedure

(Ref. Fig. 701)

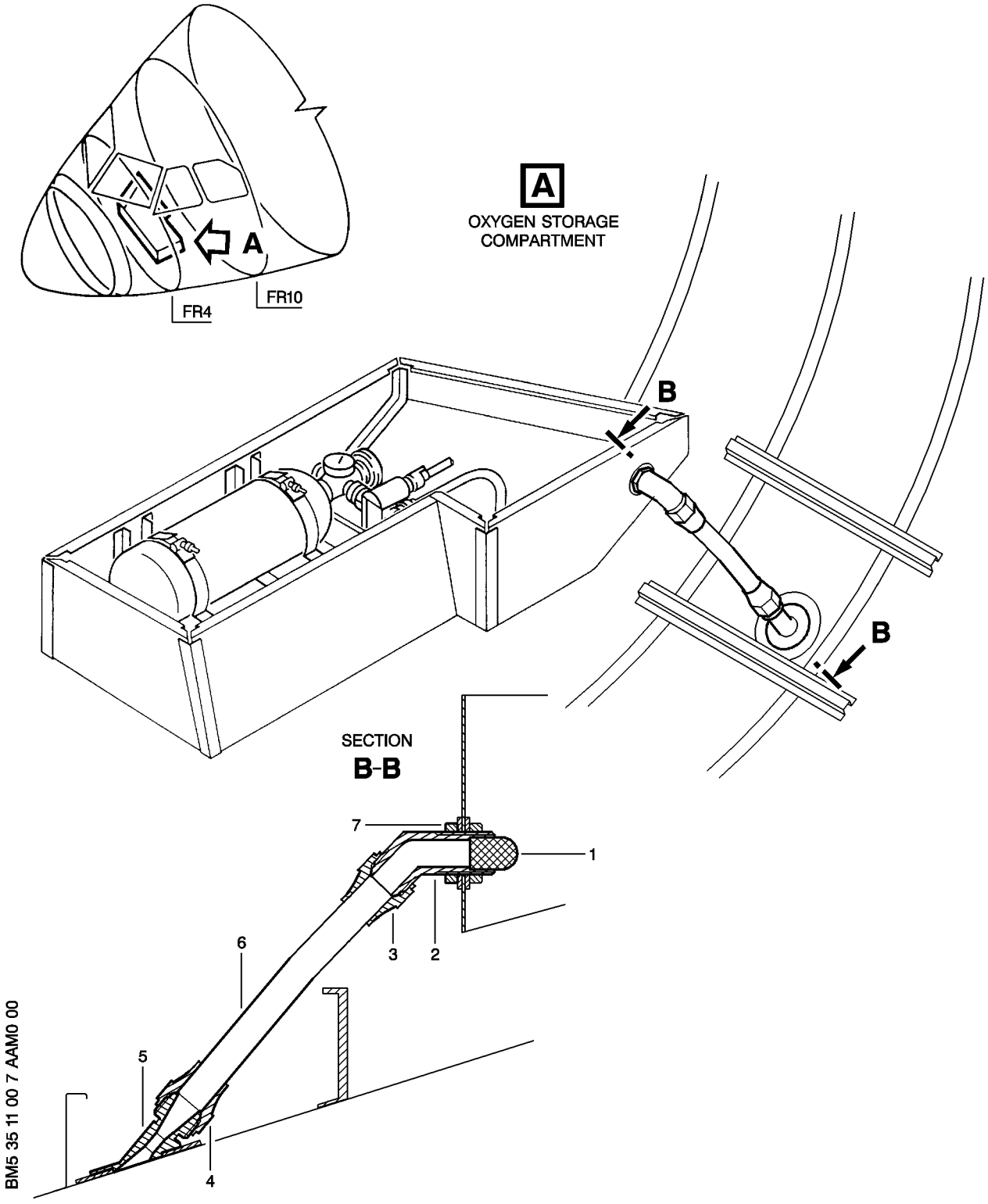
WARNING : PERSONNEL IN CHARGE OF CARRYING OUT THE ACTIONS BELOW MUST BE AWARE OF THE RISKS INVOLVED IN HANDLING OXYGEN, WHICH ENHANCES COMBUSTION IN THE PRESENCE OF FUEL AND BECOMES EXPLOSIVE IN THE PRESENCE OR HYDROCARBON (FUELS, LUBRICANTS).

A. Job Set-Up
(1)Position access platform.
(2)Open access door 121BL.
(3)Open oxygen storage compartment access door.

B. Cleaning
(1)Slightly loosen nuts (3) and (4).
(2)Loosen nut (7).
(3)Remove venturi tube (6) by fully loosening nuts (3) and (4).
(4)Clean inside of venturi tube (6), coupling (2) and venturi (5) with Material No. 11-010, using a bottle-cleaning brush.
(5)Dry off with filtered compressed air.
(6)Clean screen (1) and oxygen storage compartment using a vacuum cleaner.

C. Installation
- Install venturi tube (6) by slightly tightening nuts (3) and (4).
- Tighten nut (7).
- Fully tighten nuts (3) and (4).

D. Close-Up
(1)Close oxygen storage compartment door.
(2)Close access door 121BL.
(3)Remove access platform.



Oxygen Compartment Ventilation Venturi
Figure 701

OXYGEN STORAGE CYLINDER - REMOVAL/INSTALLATION

1. Equipment and Materials

ITEM	DESIGNATION
A.	Access Platform 2.60 m (8 ft. 6 in.)
B. Material No. 05-003B	Special Materials (Ref. 20-31-00)
C. Material No. 05-004	Special Materials (Ref. 20-31-00)
D.	Torque Wrench - 1 to 10 m.daN (8 to 75 lbf.ft.)
E.	Circuit Breaker Safety Clips
F.	Sealing Ring - Puritan

2. Procedure

WARNING : PERSONNEL IN CHARGE OF CARRYING OUT THE ACTIONS BELOW MUST BE AWARE OF THE RISKS INVOLVED IN HANDLING OXYGEN WHICH ENHANCES COMBUSTION IN THE PRESENCE OF FUEL AND BECOMES EXPLOSIVE IN THE PRESENCE OF HYDROCARBONS, FUELS, LUBRICANTS.

A. Job Set-Up

WARNING : BEFORE ANY ACTION, PERSONNEL SHOULD CLEAN TOOLS AND ENSURE THAT THEIR HANDS ARE CLEAN TO AVOID CONTAMINATION.

(1)Position access platform at forward cargo compartment door.
(2)Open forward cargo compartment door.
(3)Open access door (132AZ).
(4)Open cylinder storage compartment access door.
(5)Check that oxygen supply valve is open.
(6)Close cylinder valve.
(7)Bleed oxygen systems using a crew mask and operating the RESET TEST control slide until LP indicator reading is at its lowest.
(8)Open, safety and tag the following circuit breaker.

PANEL	SERVICE	IDENT.	LOCATION
22VU	OXYGEN/CREW	18HT	208/B28

B. Removal

R **ON A/C 001-104,

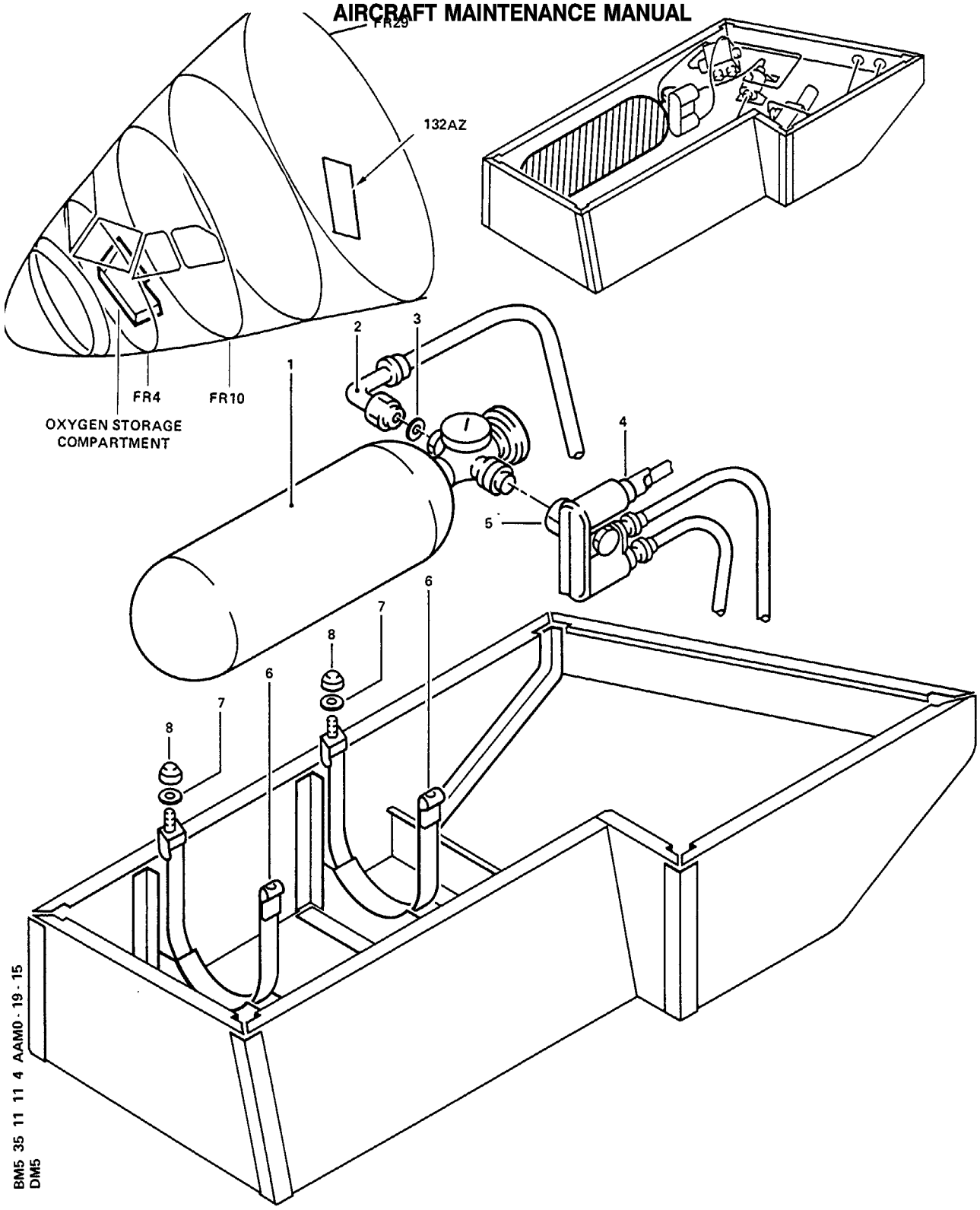
(Ref. Fig. 401)

R **ON A/C 105-200,

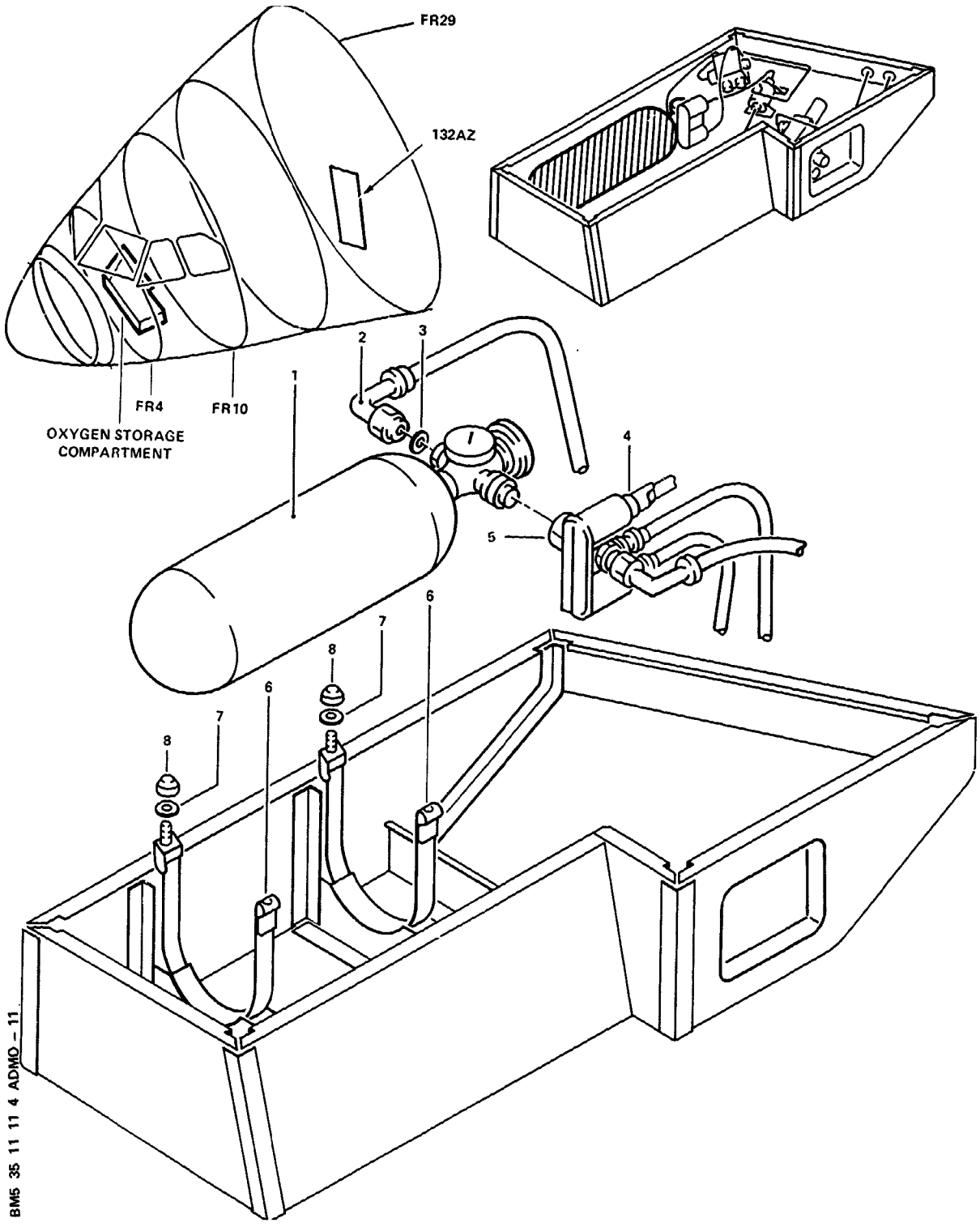
(Ref. Fig. 402)

R **ON A/C ALL

CAUTION : WHEN DISASSEMBLED TEMPORARILY ANY PIPE OR UNIT SHOULD HAVE THE ENDS PROTECTED BY A DRY AND CLEAN METAL OR PLASTIC PLUG, AND



Oxygen Cylinder
Figure 401



Oxygen Cylinder
Figure 402

BE PLACED IN A SEALED VINYL BAG.

On oxygen cylinder

(1)Remove pressure regulator (4) by loosening nut (5).
(2)Remove discharge indicator line (2). Discard sealing ring (3).
(3)Loosen nuts (8) and remove washers (7) on cylinder securing clamps (6).
(4)Remove cylinder (1).

C. Preparation of Replacement Component

(1)Make certain that date limit has not been exceeded.
(2)Visually check pressure gage and union threads.

D. Installation

CAUTION : NO COMPOUND, OTHER THAN SPECIAL MATERIAL No.05-003B MUST BE USED ON NUT THREADS OR ON THE FLARED PORTION OF THE LINE.
THIS COMPOUND SHOULD BE USED SPARINGLY ON FIRST THREE MALE THREADS.
NUTS SHOULD BE TIGHTENED TO THE REQUIRED TORQUE USING A TORQUE WRENCH ONLY.

(1)Place cylinder (1) carefully on its cradle supports.
(2)Connect pressure regulator (4). Do not fully tighten nut (5) at this stage.
(3)Install new sealing ring (3) and connect discharge indicator line (2). Do not fully tighten nut at this stage.
(4)Install cylinder securing clamps (6). Install washers (7) and tighten nuts (8).
(5)Tighten pressure regulator nut (5) and TORQUE to between 7.5 and 8 m.daN (55.30 and 58.99 lbf.ft.).
(6)Tighten discharge indicator line (2) union nut and TORQUE to between 1.8 and 2m.daN (159 and 177lbf.in.).

E. Tests

(1)Apply special material No.05-004 to each union.
(2)Open cylinder valve very slowly, 3 to 4 turns.
(3)Wait approximately 90 seconds for system pressure to stabilize.
(4)Fully open valve.
(5)Check cylinder pressure.
(6)Make certain there is no leakage.
(7)Wipe off special material No.05-004 from each union.

F. Close-Up

(1)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.
(2)Position and secure access door to cylinder storage compartment.
(3)Close access door between forward cargo compartment and avionics compartment (132AZ).
(4)Close forward cargo compartment door.
(5)Close circuit breaker 18HT.
(6)Remove access platform.

LOW PRESSURE TRANSMITTER (31HT) - REMOVAL/INSTALLATION

WARNING : OILS AND GREASES PRESENT A FIRE HAZARD WHEN IN CONTACT WITH OXYGEN, THEREFORE TOOLS AND HANDS MUST BE CLEAN.

1. Equipment and Materials

	ITEM	DESIGNATION
	A.	Access Platform, 2.60 m (8 ft. 6 in.)
	B.	Circuit Breaker Safety Clip and Tag
	C.	Torque Wrench - 4 to 6 m.daN (29.5 to 44 lbf.ft.)
	D.	Blanking Caps
R	E. Material No. 05-003B	Special Materials (Ref. 20-31-00)
	F. Material No. 05-004	Special Materials (Ref. 20-31-00)
	G. Material No. 05-022	Special Materials (Ref. 20-31-00)
	Referenced Procedure	
	- 24-41-00, P. Block 301	AC External Power Control

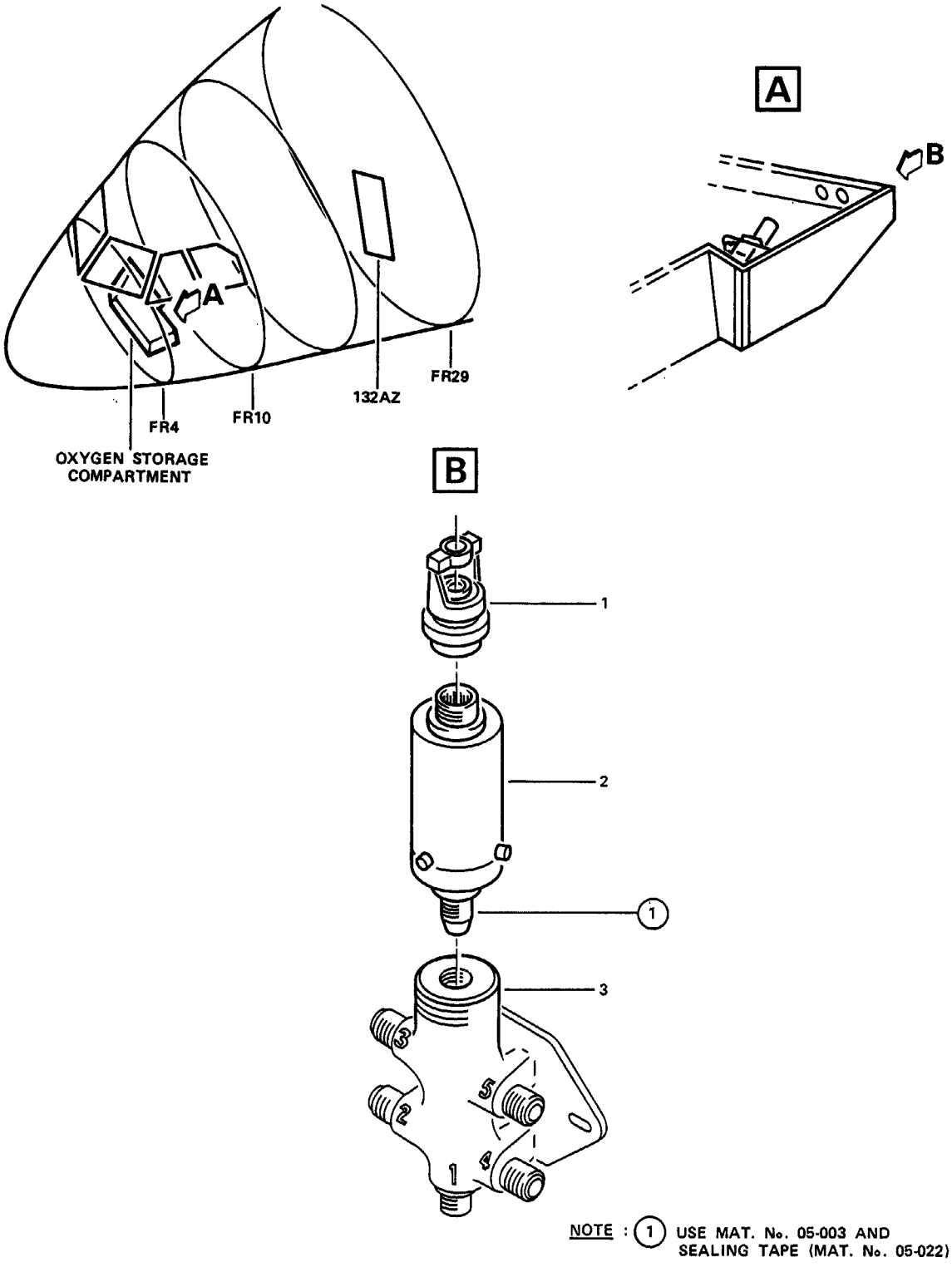
2. Procedure

A. Job Set-Up
(1)Position access platform.
(2)Connect electrical ground power unit and energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(3)Make certain that electronics racks ventilation is correct.
(4)Open forward cargo compartment door.
(5)Open access door 132AZ.
(6)Open oxygen cylinder storage compartment access door.
(7)Check that oxygen supply valve is open.
(8)Close cylinder valve.
(9)Bleed oxygen systems, using a crew mask and operating the RESET TEST control slide until LP indicator reading is at its lowest.
(10)De-energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(11)Open, safety and tag the following circuit breaker :

PANEL	SERVICE	IDENT.	LOCATION
22VU	OXYGEN/CREW	18HT	208/B28

B. Removal
(Ref. Fig. 401)
(1)Disconnect electrical connector (1) from LP transmitter (2).
(2)Unscrew LP transmitter (2) from manifold (3).
(3)Install blanking caps.

C. Preparation of Replacement Component
(1)Remove blanking caps.
(2)Remove and remaining sealing tape from threaded areas.
R (3)Apply special Material No. 05-003B around thread of LP transmitter (2).



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Low Pressure Transmitter (31HT)
Figure 401

(4)Wrap 1 to 1 1/2 turns of sealing tape (Mat. No. 05-022) around thread of LP transmitter (2).

D. Installation
(Ref. Fig. 401)
(1)Install LP transmitter (2) in manifold (3).
(2)TORQUE connector of LP transmitter (2) to between 5.08 m.daN (37.4 lbf.ft.) and 5.65 m.daN (41.6 lbf.ft.).
(3)Connect electrical connector (1) to LP transmitter (2).

E. Test
(1)Open cylinder valve very slowly, 3 to 4 turns.
(2)Wait approximately 90 seconds for system pressure to stabilize.
(3)Fully open valve.
(4)Apply leak test solution (Mat. No. 05-004) to connection of the low pressure transmitter and check for leaks.
NOTE : No leakage is permissible.
(5)Wipe off leak test solution.
(6)Energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(7)Remove safety clip and tag and close circuit breaker 18HT.
(8)On oxygen panel 435VU
- press LO PR SUPPLY pushbutton switch
- make certain that LP gage pointer stabilizes in green band.

F. Close-Up
(1)On OXYGEN panel 435VU
- release LO PR SUPPLY pushbutton switch.
(2)De-energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(3)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.
(4)Close access door to cylinder storage compartment.
(5)Close access door 132AZ.
(6)Close forward cargo compartment door.
(7)Remove access platform.

DISTRIBUTION MANIFOLD (35R108) - REMOVAL/INSTALLATION

WARNING : OILS AND GREASES PRESENT A FIRE HAZARD WHEN IN CONTACT WITH OXYGEN, THEREFORE TOOLS AND HANDS MUST BE CLEAN.

1. Equipment and Materials

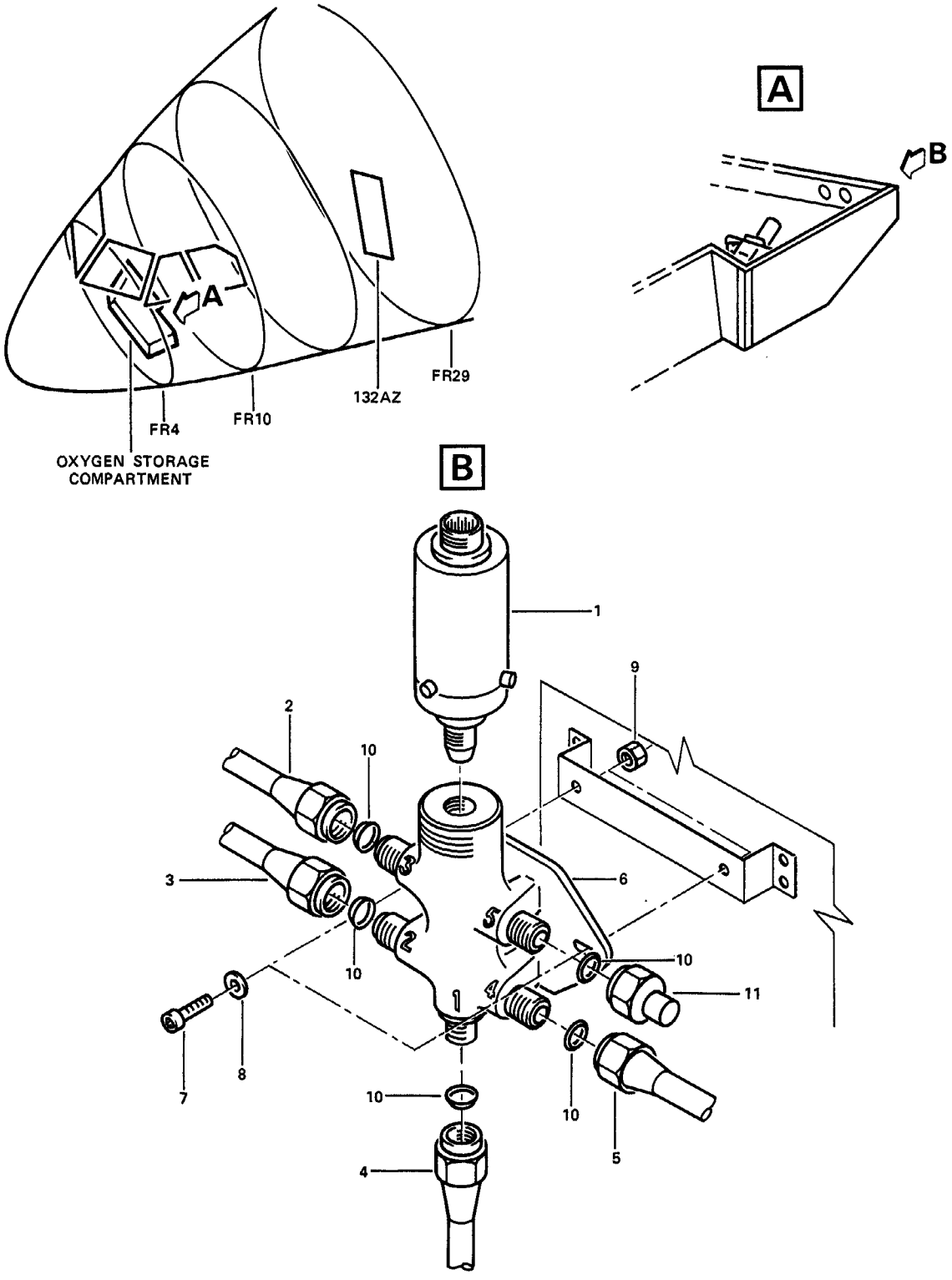
ITEM	DESIGNATION
A.	Access Platform, 2.60 m (8 ft. 6 in.)
B.	Circuit Breaker Safety Clip and Tag
C.	Torque Wrench, 0.5 to 0.8 m.daN (44 to 71 lbf.in)
D.	Blanking Caps/Plugs
E. Material No. 05-004	Special Materials (Ref. 20-31-00)
Referenced Procedures	
- 24-41-00, P. Block 301	AC External Power Control
- 35-11-23, P. Block 401	Low Pressure Transmitter

2. Procedure

A. Job Set-Up
(1) Position access platform.
(2) Connect electrical ground power unit and energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(3) Make certain that electronics racks ventilation is correct.
(4) Open forward cargo compartment door.
(5) Open access door 132AZ.
(6) Open oxygen cylinder storage compartment access door.
(7) Check that oxygen supply valve is open.
(8) Close cylinder valve.
(9) Bleed oxygen systems using a crew mask and operating the RESET TEST control slide until LP indicator reading is at its lowest.
(10) De-energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(11) Open, safety and tag the following circuit breaker :

PANEL	SERVICE	IDENT.	LOCATION
22VU	OXYGEN/CREW	18HT	208/B28

B. Removal
(Ref. Fig. 401)
(1) Remove low-pressure transmitter (1) (Ref. 35-11-23, P. Block 401).
(2) Disconnect pipes (2), (3), (4), (5) from distribution manifold (6).
(3) Remove screws (7), washers (8) and nuts (9).
(4) Remove distribution manifold (6), discard seals (10).
(5) Remove and retain, cap assembly (11) from distribution manifold (6), discard seal (10).
NOTE : Port is numbered (5) on the manifold body.
(6) Install blanking caps/plugs on pipes (2), (3), (4), (5) and distribution



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Distribution Manifold (35R108)
Figure 401

manifold (6).

C. Preparation of Replacement Component
(Ref. Fig. 401)
(1)Remove blanking cap/plug and install retained cap assembly (11) on new seal (10) of replacement distribution manifold.
NOTE : Port is numbered (5) on the manifold body.
(2)TORQUE cap assembly (11) to between 0.56 and 0.71 m.daN (50 and 63 lbf.in.).

D. Installation
(Ref. Fig. 401)
(1)Position distribution manifold (6) and secure with screws (7), washers (8) and nuts (9).
(2)Remove blanking caps/plugs and connect pipes (2), (3), (4), (5) with new seals (10) to the distribution manifold (6).
(3)TORQUE nuts of pipes (2), (3), (4), (5) to between 0.56 and 0.71 m.daN (50 and 63 lbf.in.).
(4)Install low-pressure transmitter (1) (Ref. 35-11-23, P. Block 401).

E. Test
(1)Open cylinder valve very slowly, 3 to 4 turns.
(2)Wait approximately 90 seconds for system pressure to stabilize.
(3)Fully open valve.
(4)Apply leak test solution (Mat. No. 05-004) to all connections of the distribution manifold, and check for leaks.
NOTE : No leakage is permissible.
(5)Wipe off leak test solution.
(6)Energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(7)Remove safety clip and tag and close circuit breaker 18HT.
(8)On oxygen panel 435VU:
- press LO PR SUPPLY pushbutton switch
- make certain that LP gage pointer stabilizes in green band.

F. Close-Up
(1)On oxygen panel 435VU:
- release LO PR SUPPLY pushbutton switch.
(2)De-energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(3)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.
(4)Close access door to cylinder storage compartment.
(5)Close access door 132AZ.
(6)Close forward cargo compartment door.
(7)Remove access platform.

OXYGEN HP TRANSMITTER/PRESSURE REGULATOR - REMOVAL/INSTALLATION

1. Equipment and Materials

ITEM	DESIGNATION
A.	Access Platform 2.60m (8 ft.6 in.)
B. Material No. 05-003B	Special Materials (Ref. 20-31-00)
C. Material No. 05-004	Special Materials (Ref. 20-31-00)
D.	Torque Wrench 0 to 6 m.daN (0 to 44 lbf.ft.)
E.	Circuit Breaker Safety Clips
F.	Sealing Ring - Puritan

2. Procedure

WARNING : PERSONNEL IN CHARGE OF CARRYING OUT THE ACTIONS BELOW MUST BE AWARE OF THE RISKS INVOLVED IN HANDLING OXYGEN, WHICH ENHANCES COMBUSTION IN THE PRESENCE OF FUEL, AND BECOMES EXPLOSIVE IN THE PRESENCE OF HYDROCARBONS (FUELS, LUBRICANTS).

A. Job Set-Up

WARNING : BEFORE ANY ACTION, PERSONNEL SHOULD CLEAN TOOLS AND ENSURE THAT THEIR HANDS ARE CLEAN TO AVOID CONTAMINATION.

(1)Position access platform at forward cargo compartment door.
(2)Open forward cargo compartment door.
(3)Open access door 132AZ.
(4)Open oxygen cylinder storage compartment access door.
(5)Check that oxygen supply valve is open.
(6)Close cylinder valve.
(7)Bleed oxygen systems using a crew mask and operating the RESET TEST control slide until LP indicator reading is at its lowest.
(8)Open, safety and tag the following circuit breaker :

PANEL	SERVICE	IDENT.	LOCATION
22VU	OXYGEN/CREW	18HT	208/B28

B. Removal

CAUTION : WHEN DISASSEMBLED TEMPORARILY, ANY PIPE OR UNIT SHOULD HAVE THE ENDS PROTECTED BY A DRY AND CLEAN METAL OR PLASTIC PLUG, AND BE PLACED IN A SEALED VINYL BAG.

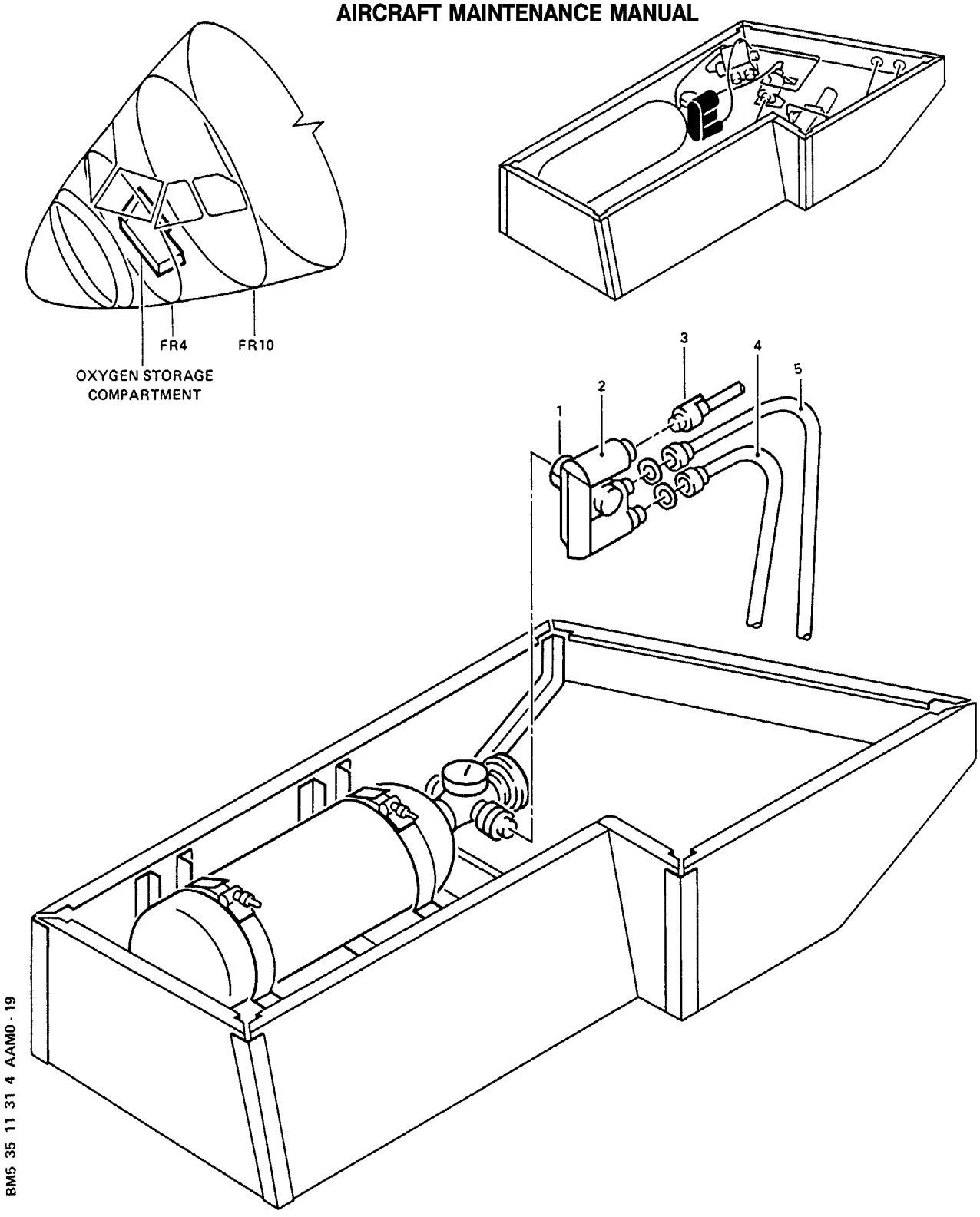
R **ON A/C 001-104,

(Ref. Fig. 401)

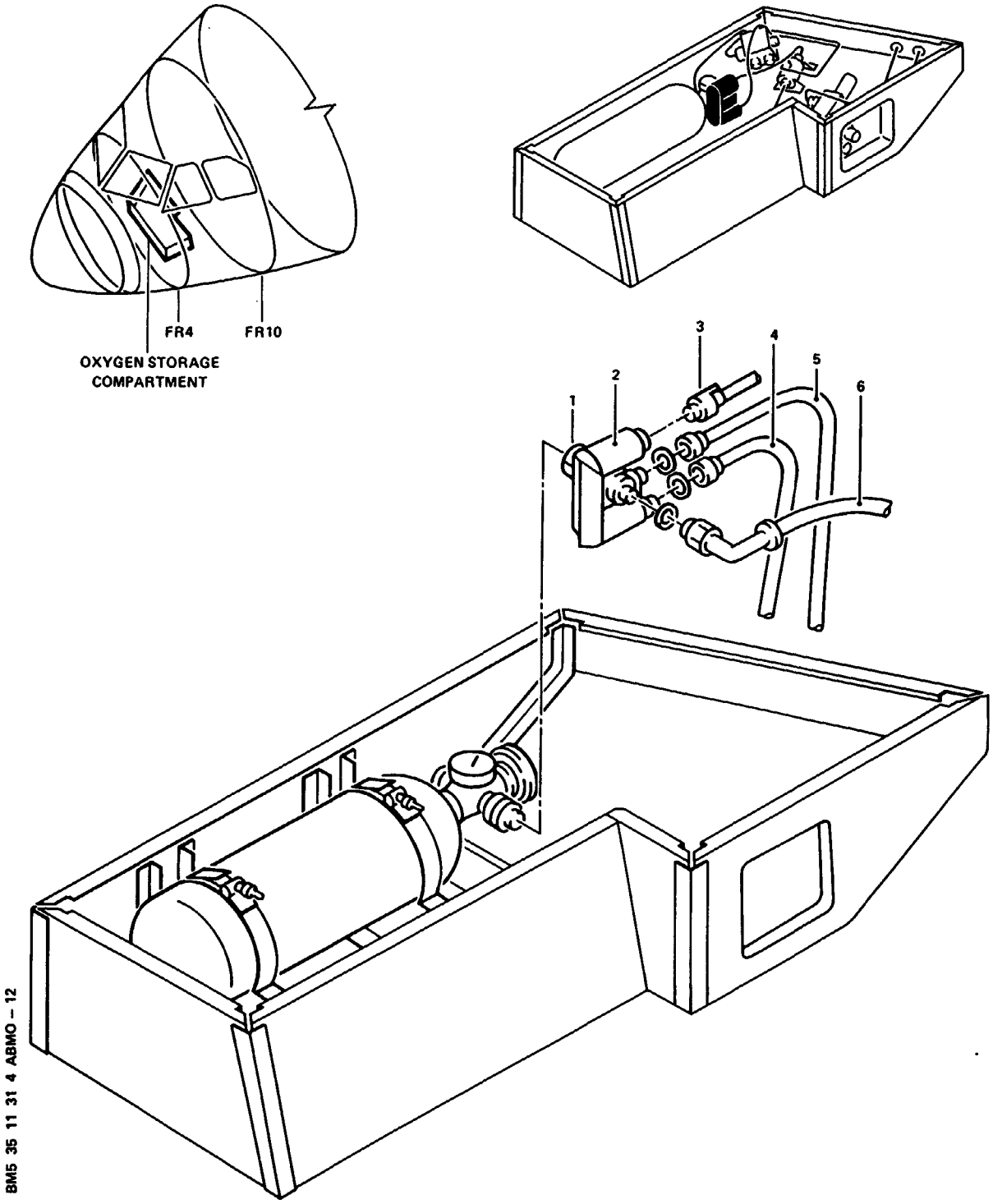
R **ON A/C 105-200,

(Ref. Fig. 402)

R **ON A/C 001-104,



HP Transmitter/Pressure Regulator
Figure 401



HP Transmitter/Pressure Regulator
Figure 402

(1)Disconnect LP discharge indicator line (4). Discard sealing ring.
(2)Disconnect LP distribution line (5). Discard sealing ring.
(3)Disconnect HP transmitter electrical connector (3)
(4)Disconnect cylinder HP transmitter/pressure regulator (2) by loosening nut (1)
(5)Remove HP transmitter/pressure regulator (2).

R **ON A/C 105-200,

(1)Disconnect LP discharge indicator line (4). Discard sealing ring.
(2)Disconnect LP distribution line (5). Discard sealing ring.
(3)Disconnect oxygen filling line (6). Discard sealing ring.
(4)Disconnect HP transmitter electrical connector (3).
(5)Disconnect cylinder HP transmitter/pressure regulator (2), by loosening nut (1).
(6)Remove HP transmitter/pressure regulator (2).

R **ON A/C ALL

C. Installation

CAUTION : NO COMPOUND, OTHER THAN MATERIAL No.05-003B MUST BE USED ON NUT THREADS OR ON THE FLARED PORTION OF THE TUBE.
THIS COMPOUND SHOULD BE USED SPARINGLY ON ALL FIRST THREE MALE THREADS.

R **ON A/C 001-104,

(Ref. Fig. 401)
(1)Connect HP transmitter/pressure regulator (2) to cylinder tighten nut (1) and TORQUE to between 7.5 and 8 m.daN (55.37 and 59 lbf.ft.).
(2)Install new sealing ring at each union and connect LP distribution line (5)
(3)Connect pressure transmitter (3) electrical connector and LP discharge indicator line (4)
(4)Tighten union nuts on these lines and TORQUE to between 2.03 and 2.26 m.daN (14.8 and 16.4 lbf.ft.).

R **ON A/C 105-200,

(1)Connect HP transmitter/pressure regulator (2) to cylinder tighten nut (1)
(2)Install new sealing ring at each union and connect LP distribution line (5), LP discharge indicator line (4) and oxygen filling line (6)
(3)Connect pressure transmitter (3) electrical connector.
R (4)Tighten union nuts on these lines and TORQUE to between 2.03 and
R 2.26 m.daN (14.8 and 16.4 lbf.ft.).
(Ref. Fig. 402)

R **ON A/C ALL

D. Test
(1)Apply material No.05-004 to each union.
(2)Open cylinder valve very slowly 3 to 4 turns.
(3)Wait approximately 90 seconds for system pressure to stabilize.
(4)Fully open valve.
(5)Check for leakage.
(6)Wipe off material No.05-004 from each union.

E. Close-Up
(1)Make certain that oxygen storage compartment is clean and clear of tools and miscellaneous items of equipment.
(2)Position and secure access door to oxygen storage compartment.
(3)Close access door betweem forward cargo compartment and avionics compartment (132AZ).
(4)Close forward cargo compartment door.
(5)Close circuit breaker 18HT.
(6)Remove access platform.

1. Description

R (Ref. Fig. 001)

R (Ref. Fig. 002)

A. Low Pressure Distribution in the Compartment

A flexible hose connected to the bleed port of the HP transmitter/regulator assembly, ensures a connection to a rigid line on which are mounted :
A supply solenoid valve which enables the downstream distribution system to be supplied or cut off by direct action of the crew on the control and monitoring panel in the flight compartment.
(Ref. Fig. 002)
Electrical supply to the solenoid valve is only applied for a fraction of a second corresponding to the opening or closing time of the valve. This valve is controlled via an electronic control box 19HT located on shelf 96VU in the avionics compartment (emergency smoke detection shelf)

R (Ref. Fig. 003)

The oxygen system is electrically supplied from the 28VDC smoke emergency essential busbar 303PP. Integral lighting for the high and low pressure indicators is provided by the 5 volt AC circuit LF.
The supply valve is connected by a rigid pipe to a manifold, the main characteristics of which are as follows :

. adapters forged with the manifold thus limiting possible leakage at joints and spillage.
. plenum chamber increasing system performance and safety.

On the manifold are connected :

- the LP transmitter which detects low pressure by means of an integrated transducer delivering an electrical signal to a remote indicator located on the control and monitoring panel in the flight compartment.
- three rigid pipes, two for distribution, one for connection to a test port equipped with a bayonet connection with an integrated non return valve, and an airtight cap, designed to be fitted with a PURITAN 110-111-36 special test connector.
  The maximum pressure which can be applied to the test port is : 9 bars (130 psig). This test port enables a strength and leakage test of this system to be performed, particularly after any removal of a component of the distribution system.

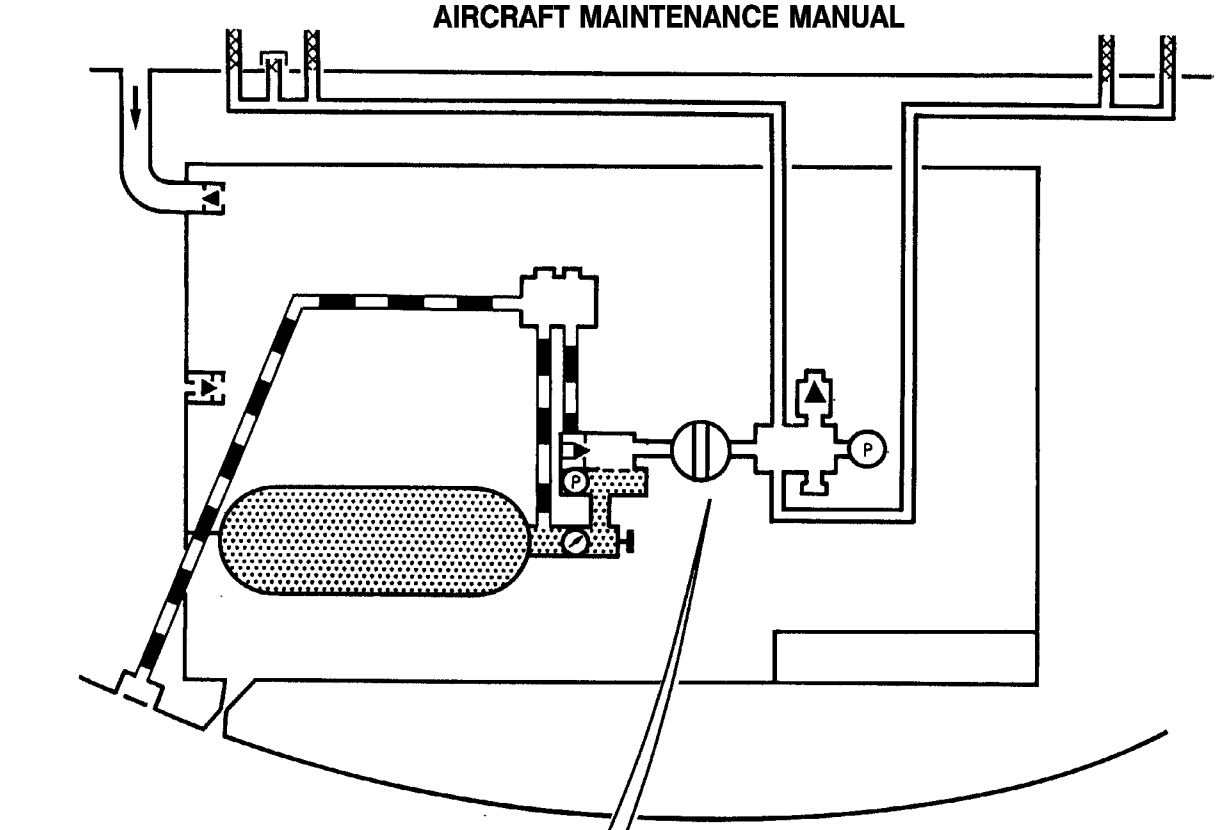
B. Oxygen Distribution Systems

R (Ref. Fig. 004)

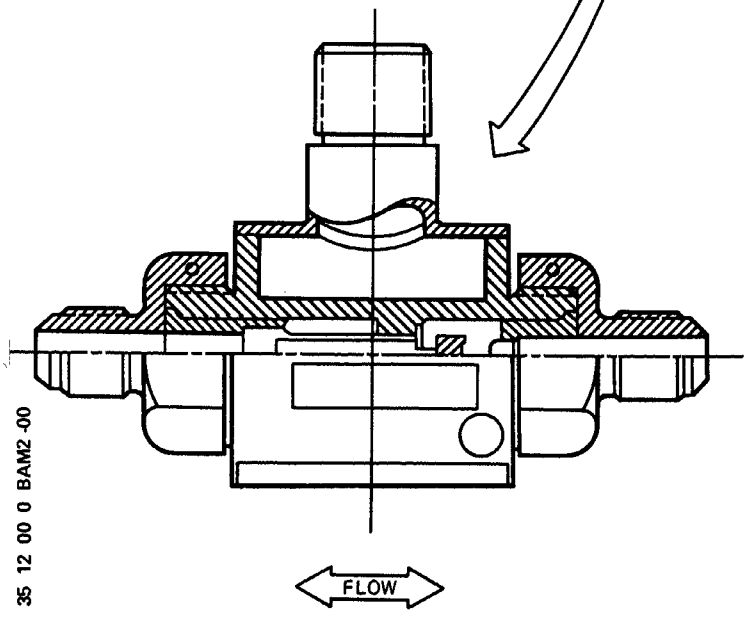
R (Ref. Fig. 005)

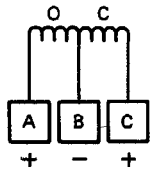
R (Ref. Fig. 006)

Two distribution systems connected to the manifold run below the flight compartment floor in the avionics compartment ; one supplies the Captain's and the 3rd folding seat Occupant's oxygen mask assembly through the floor ; the other supplies the First Officer's and the optional 4th Occupant's oxygen mask assemblies through the floor. The whole system is made up of rigid pipes, except the junction between the rigid pipes supplying the mask assemblies and the mask assembly itself, which is ensured



TWO STABLE SUPPLY SOLENOÏD VALVE





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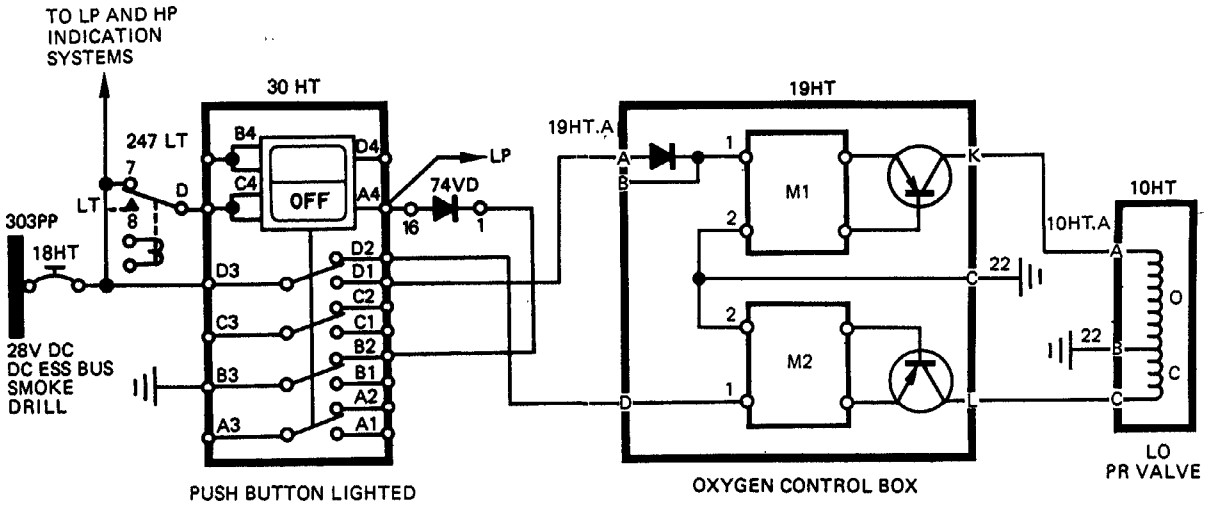
Oxygen Supply Valve
Figure 001

R



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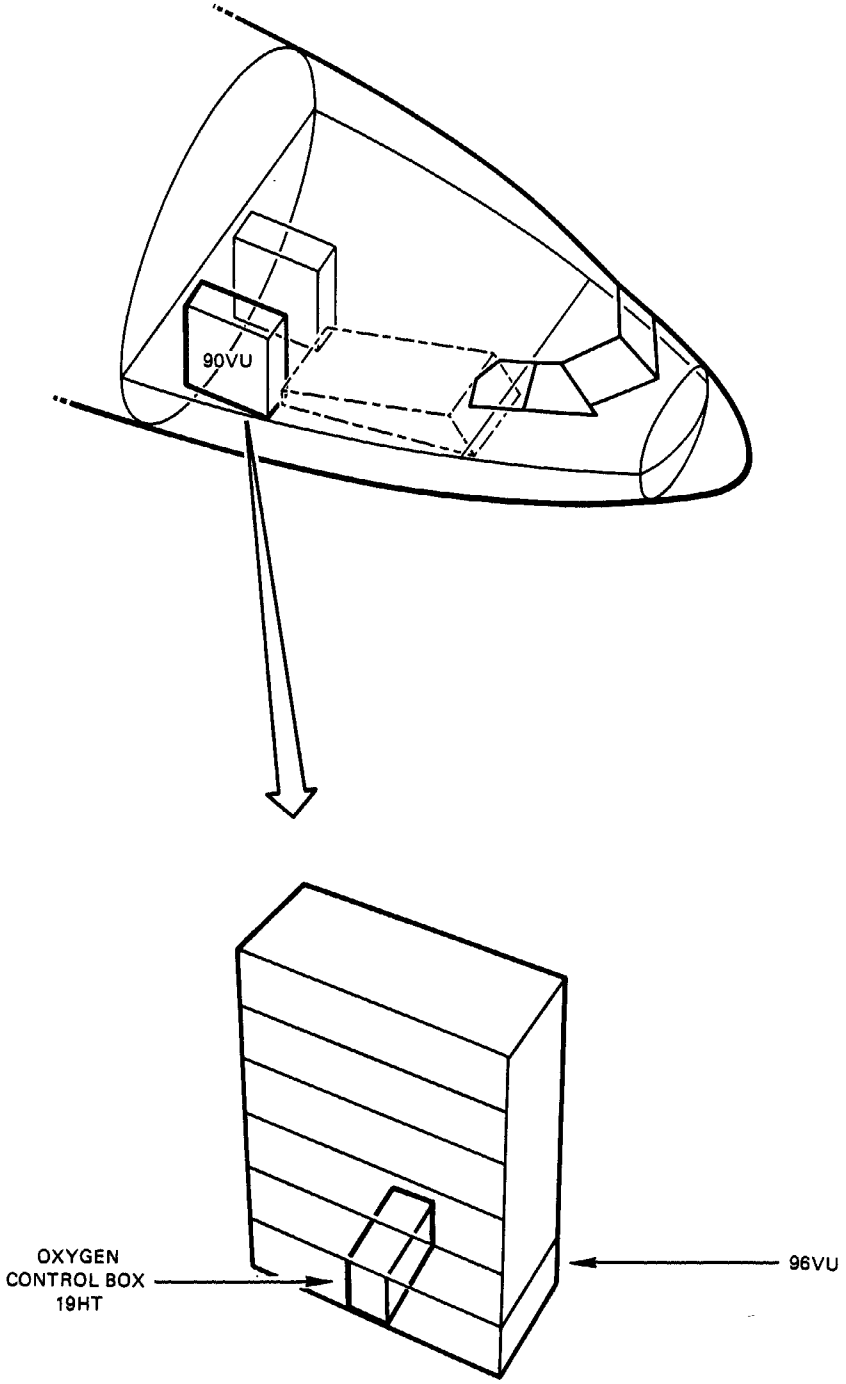
Supply Valve Control
Figure 002

R



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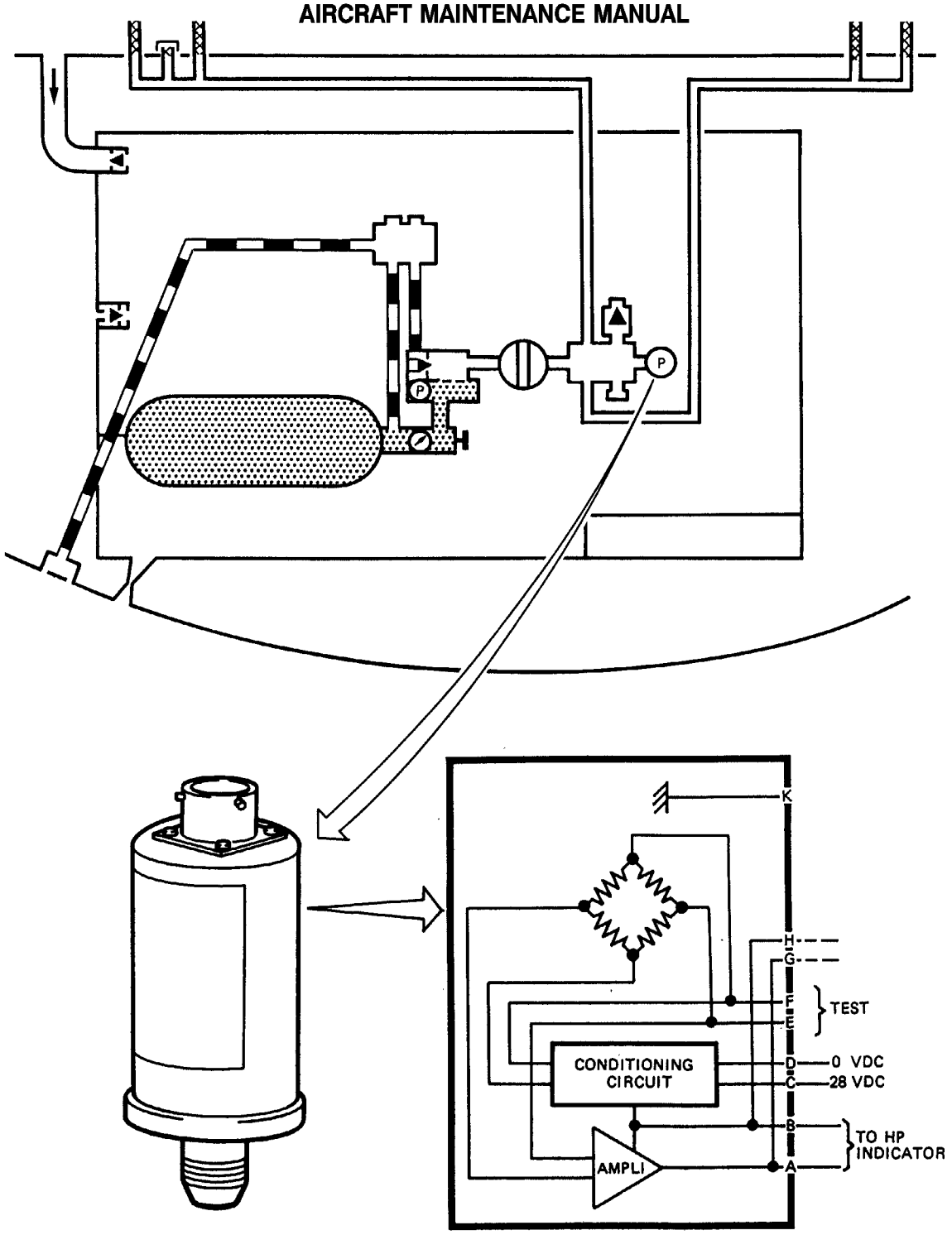
Oxygen Control Box Location
Figure 003

R



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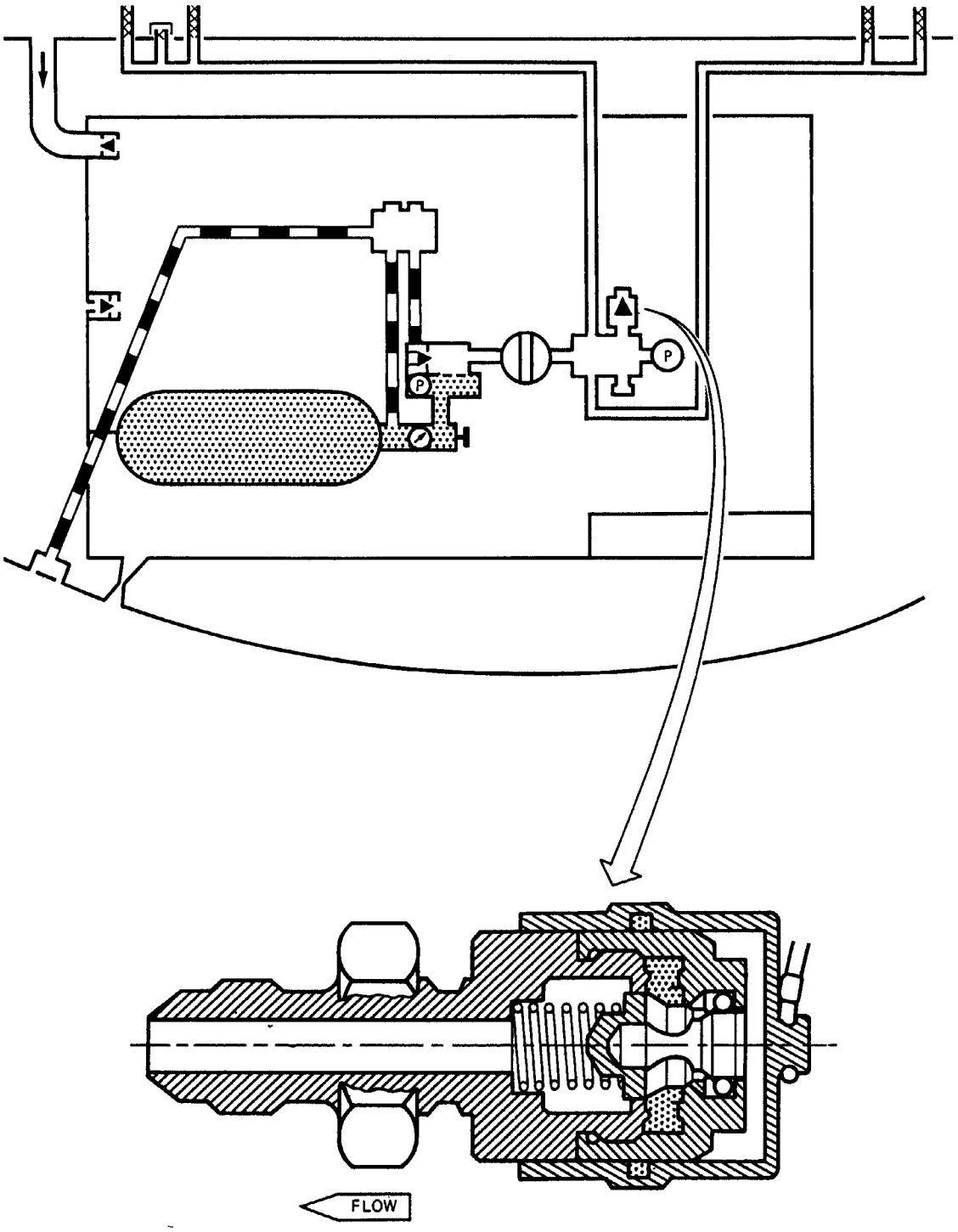
Low Pressure Transmitter
Figure 004

R



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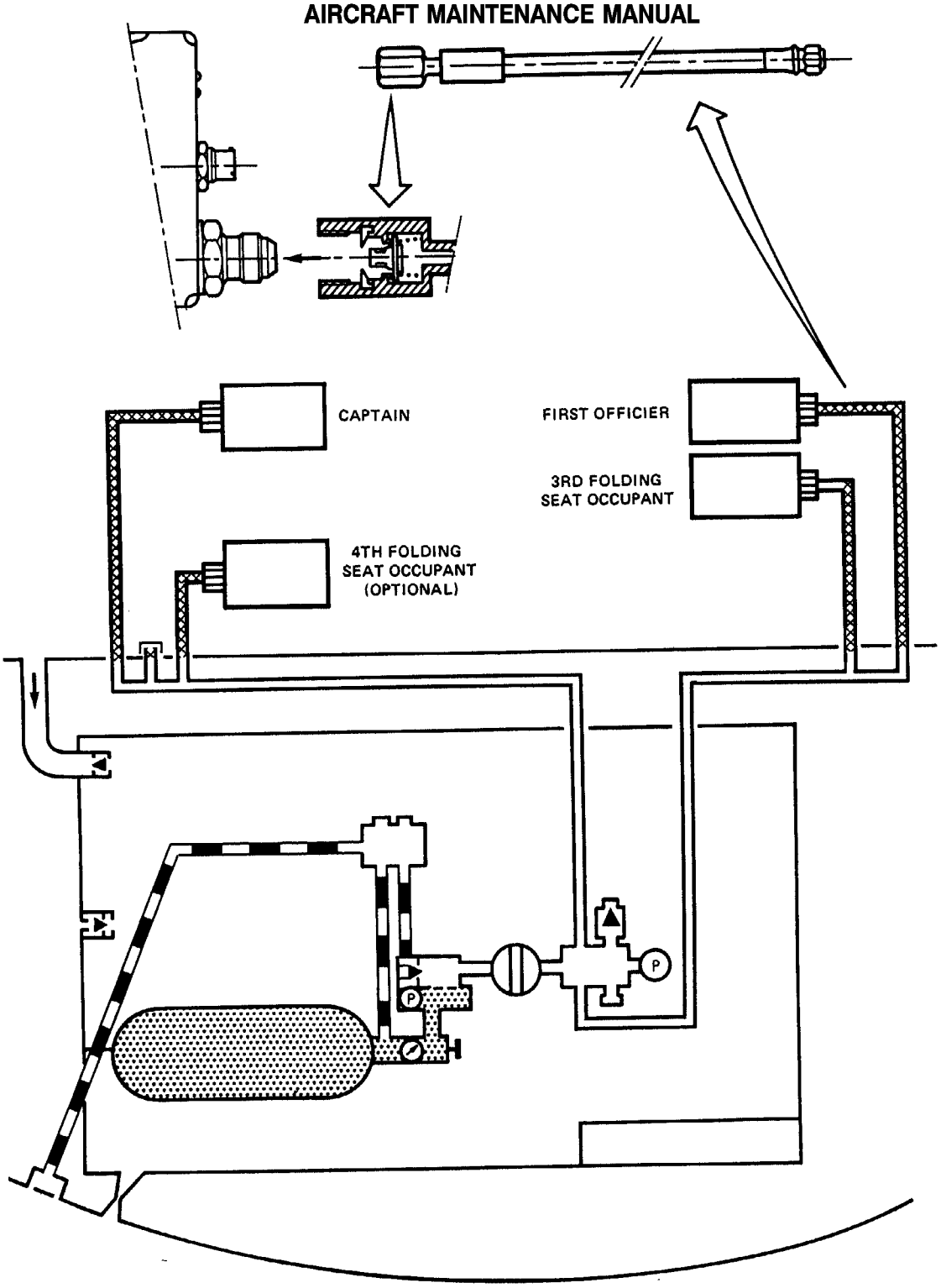
Test Port Assembly
Figure 005



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Flexible Hose
Figure 006

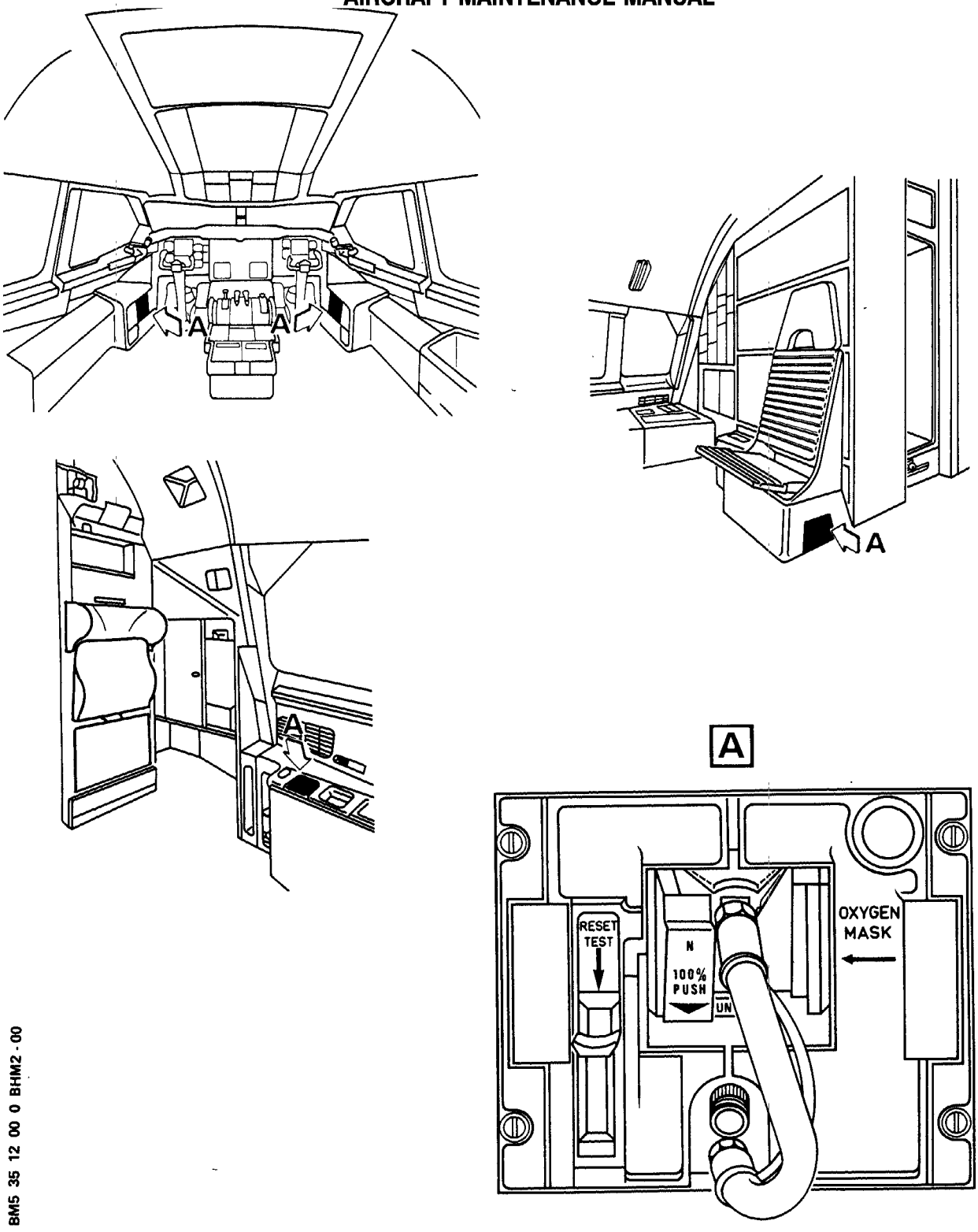
by a flexible hose/self sealing coupling.
This flexible section which enables easy connection of the mask assembly, ensures perfect sealing of the aircraft system during disassembly and reassembly phases of the mask assembly, even when the latter is not connected to the aircraft system.

C. Quick Donning Oxygen Mask Assembly
(Ref. Fig. 007)
(Ref. Fig. 008)
(Ref. Fig. 009)
Adjacent to each of the five crew members occupying a seat in the flight compartment, is installed a mask assembly including a mask and a stowage box.

(1)Stowage box
It includes :
(a)A connector enabling connection of the flexible hose and therefore eliminating the function of the self-sealing coupling of this hose.
(b)A two-flap door maintaining the mask in its housing, protected from foreign matter ; the left flap, because it incorporates the control slide, controls the supply valve opening and closing.
(c)A stainless steel rigid pipe connected to the connection (a) and to a pneumatic supply valve, the operating conditions of which are ensured either by the opening of the LH flap on the box face or by the TEST RESET self-returning control slide integral with this left flap.
(d)A blinker flowmeter flashing when oxygen is flowing.
(Ref. Fig. 010)

(2)A mask/stowage box junction assembly consisting of :
(a)A preformed flexible hose for oxygen supply connected to the valve and the free end of which includes a quick disconnect connection with self-sealing coupling for connection to the relevant supply pipe of the mask regulator
(b)A microphone lead tied to the oxygen flexible hose by ties and
R connected at one of its ends to a connector mounted on the box and enabling connection to the aircraft network ; the other end is provided with quick-disconnect positive locking connector for connection to the relevant mask microphone supply cable.

(3)Quick-donning mask
The quick-donning (less than 5 sec) oxygen mask consists of :
. a harness inflated by a manual control lever, which is used simulaneously to remove the mask from its housing and inflate the harness enabling the mask to be donned.
. a demand regulator
- air (oxygen dilution or 100 % pure oxygen according to altitude)
- 100 % pure oxygen without overpressure
- 100 % pure oxygen with overpressure
The first two functions are ensured by the NORMAL - 100% selector with positive locking on the 100 % position, the last one by an emergency rotation knob (when pressing : intermittent continuous flow), (when turning : permanent continuous flow).
(Ref. Fig. 011)
- a face piece, which is tightly applied on the face, and includes a



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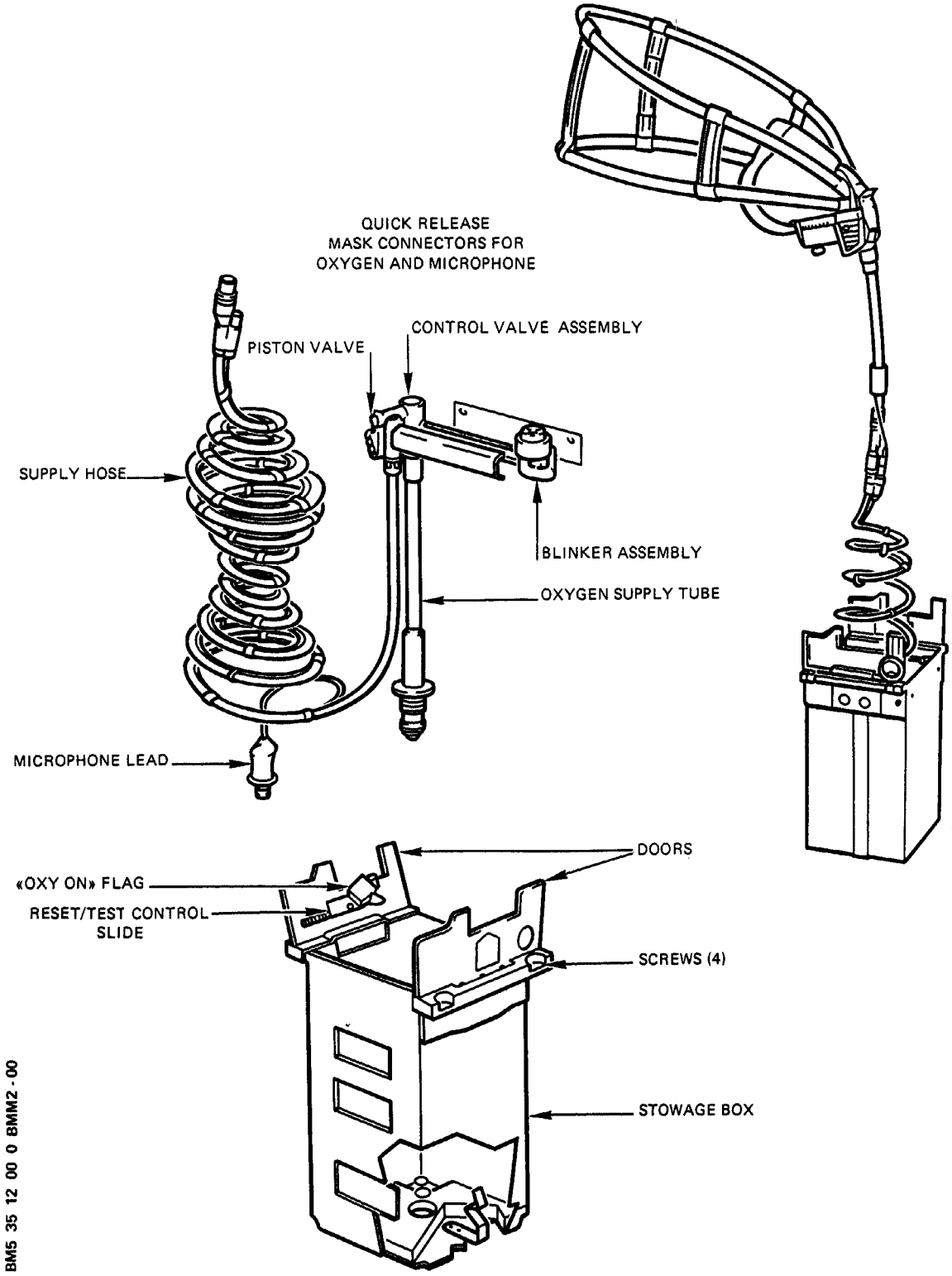
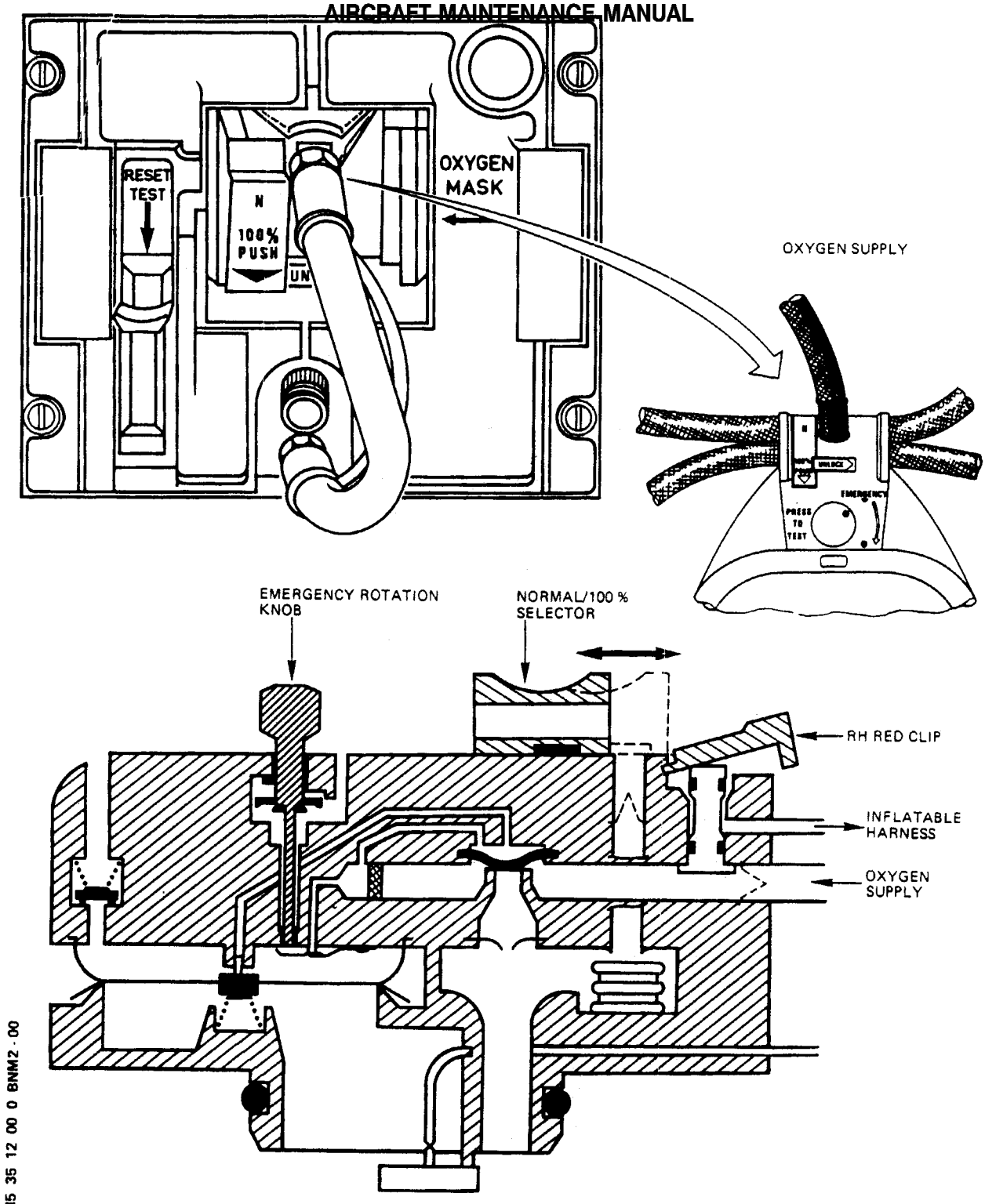
Quick Donning Oxygen Mask
Figure 007

R



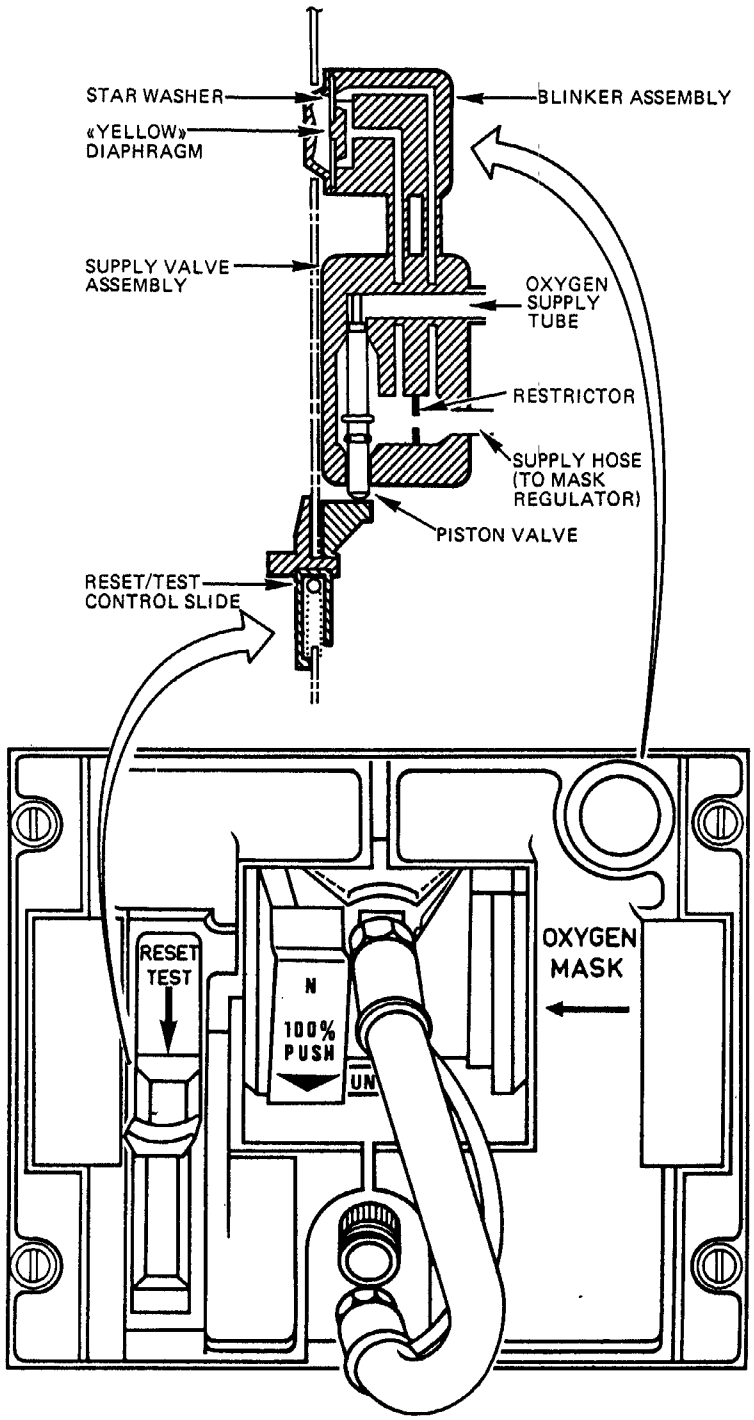
Quick Donning Oxygen Mask Assembly
Figure 008

R



Quick Donning Mask Regulator Assembly
Figure 009

R



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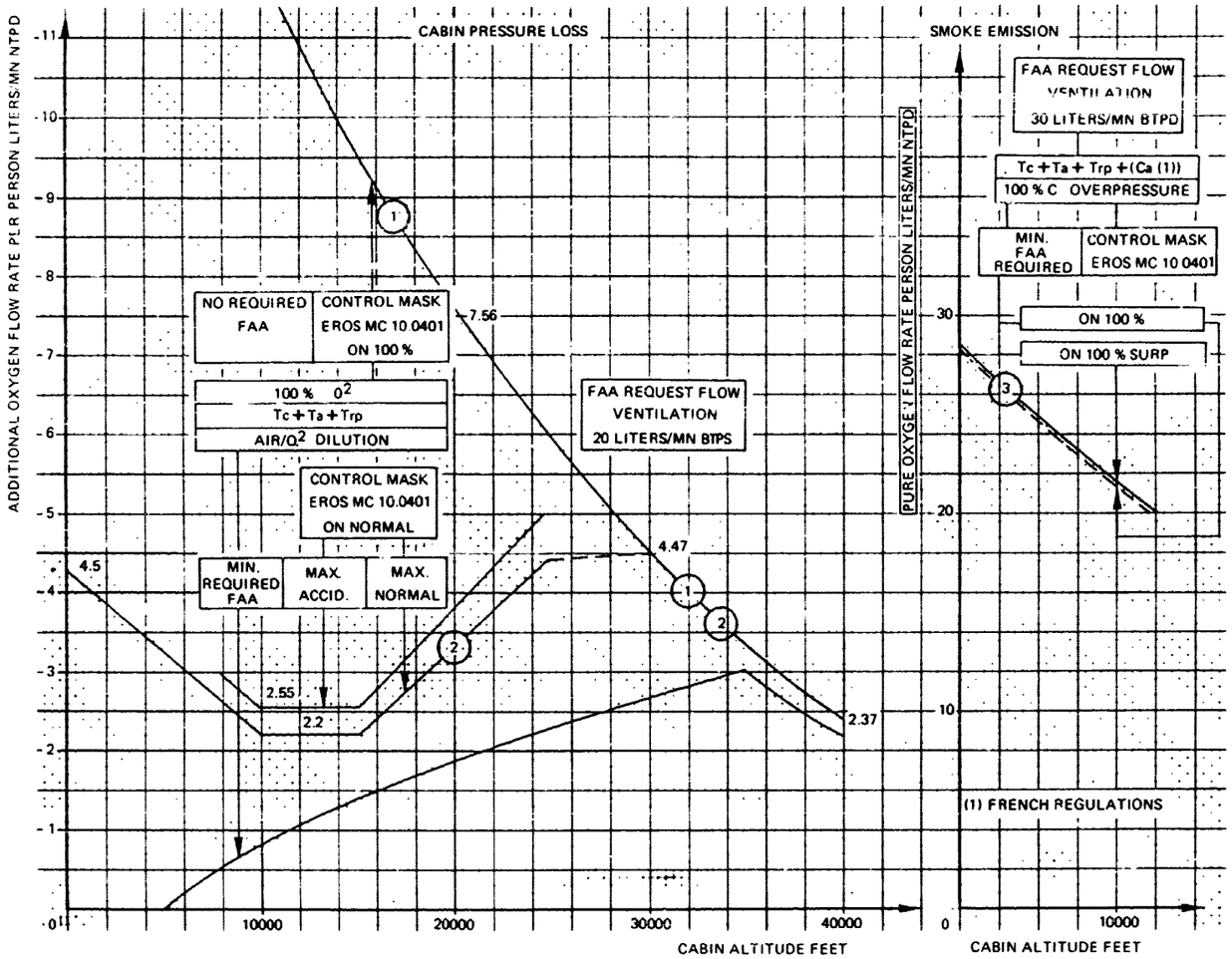
Quick - Donning Oxygen Mask Supply Valve and Blinker Assembly
Figure 010

R



Quick - Donning Mask Regulator Performance
Figure 011

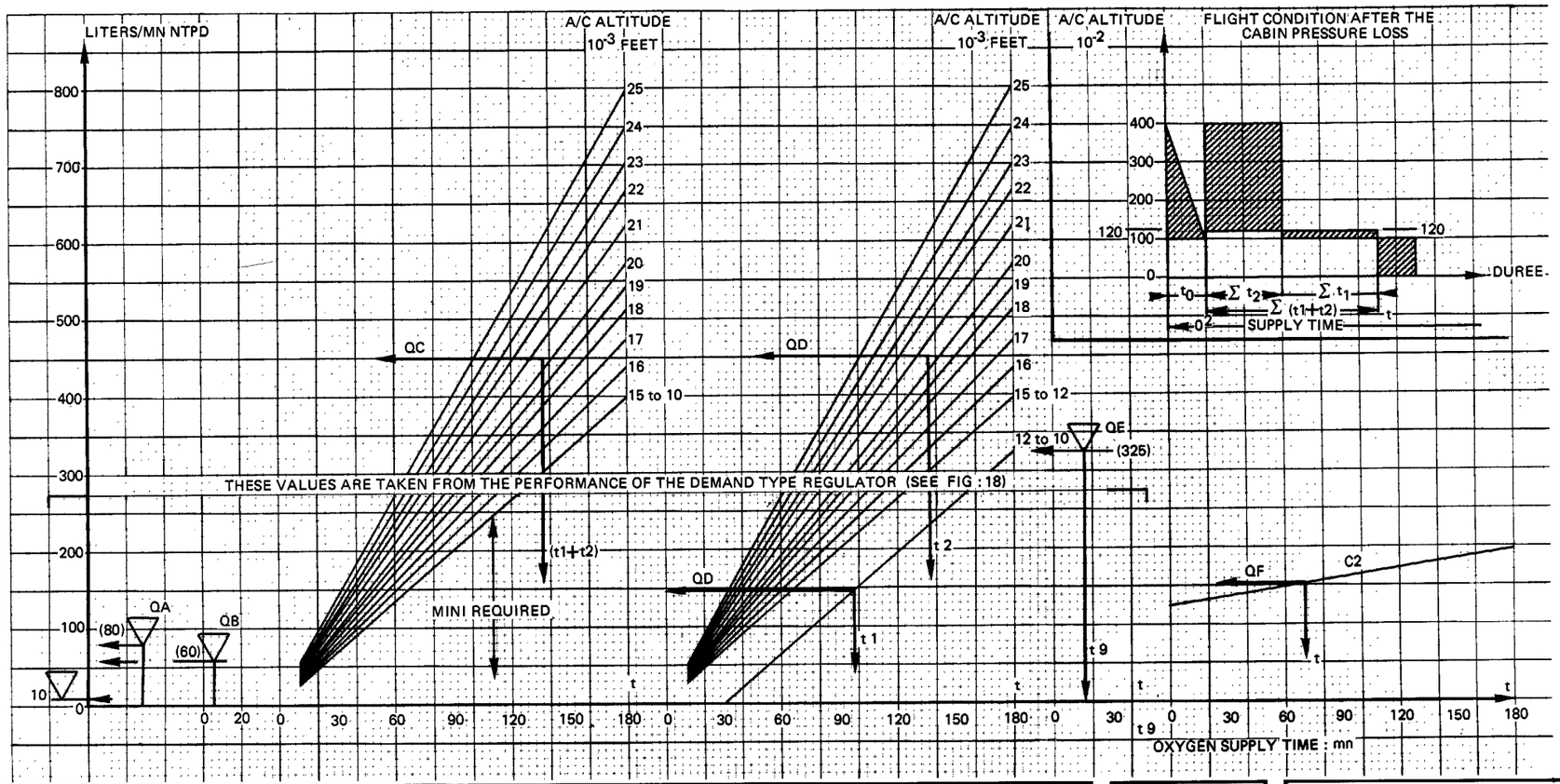
high level dynamic type microphone with a built-in preamplifier.

D. System Supply Capability
(1)The system capability is determined from :
(a)The analysis of the applicable official regulations.
(b)The flight conditions after a cabin pressure loss. These conditions are defined, with passengers on board, in the flight limitations
(c)The supply conditions. Degree of protection according to corresponding figure
(d)The quick-donning mask regulator performance (Ref. Fig. 011)
(e)The safety factors relative to :
- the minimum operating pressure particular of the cylinder regulator
- the possible leakage from the system and equipment
- the mask regulator tolerances concerning the flow rate
- the tolerances on the user's ventilation flow
(2)All the parameters necessary for the calculations of capability are specified (Ref. Fig. 012)
(a)The calculations of capability are thus specified :
- Minimum necessary oxygen quantity in the cylinder :
f (supply duration after a cabin pressure loss)
(Ref. Fig. 013)
- Minimum necessary oxygen pressure in the cylinder :
f (supply duration after a cabin pressure loss)
(Ref. Fig. 014)

E. Controls and Monitoring - Description of Indication Analysis
(1)Storage compartment
It is possible, through the windows provided on the storage compartment access cover to check with a flash light the cylinder pressure by direct reading of the cylinder gauge provided for that purpose upstream of the cylinder valve. This reading is mainly intended for the maintenance personnel who must check the cylinder residual pressure to decide a possible replacement.
It should be noted that the residual pressure in the cylinder must not be less than 85 psig ; this condition is necessary to avoid the introduction of humidity which would require a cleaning operation before filling.
(2)Control and monitoring panel
(a)Description
This panel is located on the center overhead panel

2. Operation

A. Quick-Donning oxygen mask assembly (Ref. Fig. 015, 016)
(1)Control of oxygen supply valve
The oxygen supply can be ensured :
. during the in situ tests, by holding the self returning control slide
. during mask utilization, by opening the LH flap without actuating the control slide.
Oxygen supply remains ensured if, after opening the LH flap, this flap is closed again. In this case, a white flag with OXY. ON indication appears to the right of the left flaps. Still in this case, oxygen supply can be turned off when returning the mask to the stowage



GROUND	NORMAL CABIN ALTITUDE	CABIN PRESSURE LOSS		NORMAL CABIN ALTITUDE	SAFETY FACTORS MIN PRESSURE REGULATOR 100 PSI CIRCUIT LEAKAGE 0,2 PSI MN
TEST IN SITU	PREVENTION CAPTAIN FIRST OFFICER DILUT AIR/O^2 2 x 15 MN	DESCENT Tc + Ta + Trp 100% O^2 to = 10 MN	CONTINUATION OF FLIGHT FLIGHT CREW MEMBERS OR FLIGHT DECK DUTY Tc DILUTED AIR/OXYGEN $\sum$ t1 + t2 WITH MINI 110 MN AZ AVION = 10000 F	STANDBY FLIGHT CREW MEMBERS IN THE COCKPIT Ta+Trp DILUTION AIR/O^2 $\sum$t2 A Z AVION > 12000 FEET $\sum$t1 A 10000 FEET < Z AVION < 12000 FEET	SMOKE EMISSION (Tc+(Ta+Trp - 1) 100% O^2 t7 = 15 MN	
5 SEC	CONSUM Q_A	CONSUM (Tc+Ta+Trp) x QB	CONSUMPTION Tc $\sum$ Qc x K1 (NOTE 2)	CONSUMPTION (Ta + Trp) x $\sum Q_D$ x K1 (NOTE 2)	UMPTION Tc+(Ta+Trp - 1) X Q_E (NOTE 2)	CONSUMPTION $\sum n\ Q_F$
COSUM Tc + Ta + Trp + x Qo	CONSUMPTION CALCULATIONS					

MINIMUM NECESSARY OXY. QUANTITY

$$Qm = (Tc+Ta+Trp) \times Q_o + Q_A + \left\{ \begin{array}{l} (Tc+Ta+Trp) \times Q_B + Tc \sum Q_c \times K1 + (Ta+Trp) \sum Q_D \times K1 \\ \rightarrow 245\ Tc \text{ IF } Qc < 245 \\ \rightarrow OR\ (Ta+(Ta+Trp-1))\ QE \text{ IF} \\ (Tc+(Ta+Trp-1))\ Q_E > (Tc+Ta+Trp)\ Q_B + \\ (Tc \sum Qc \text{ OR } 245\ Tc) + (Ta+Trp) \sum QD \end{array} \right\} + Q_F$$

MINIMUM NECESSARY OXYGEN PRESSURE

$$Pm = 1850 \times \frac{Qm}{C2}$$

$$Pm = Pm \times \frac{T^o K}{21^o C} \times \frac{1}{294} \times K2 \qquad K2 = \text{COMPRESSIBILITY FACTOR FOR } 0^2$$

NOTE 2 PRESSURE REGULATING TOLERANCE FACTOR AND HUMAN BREATHING TOLERANCES FACTOR K1=1,15 (ESTIMATED)

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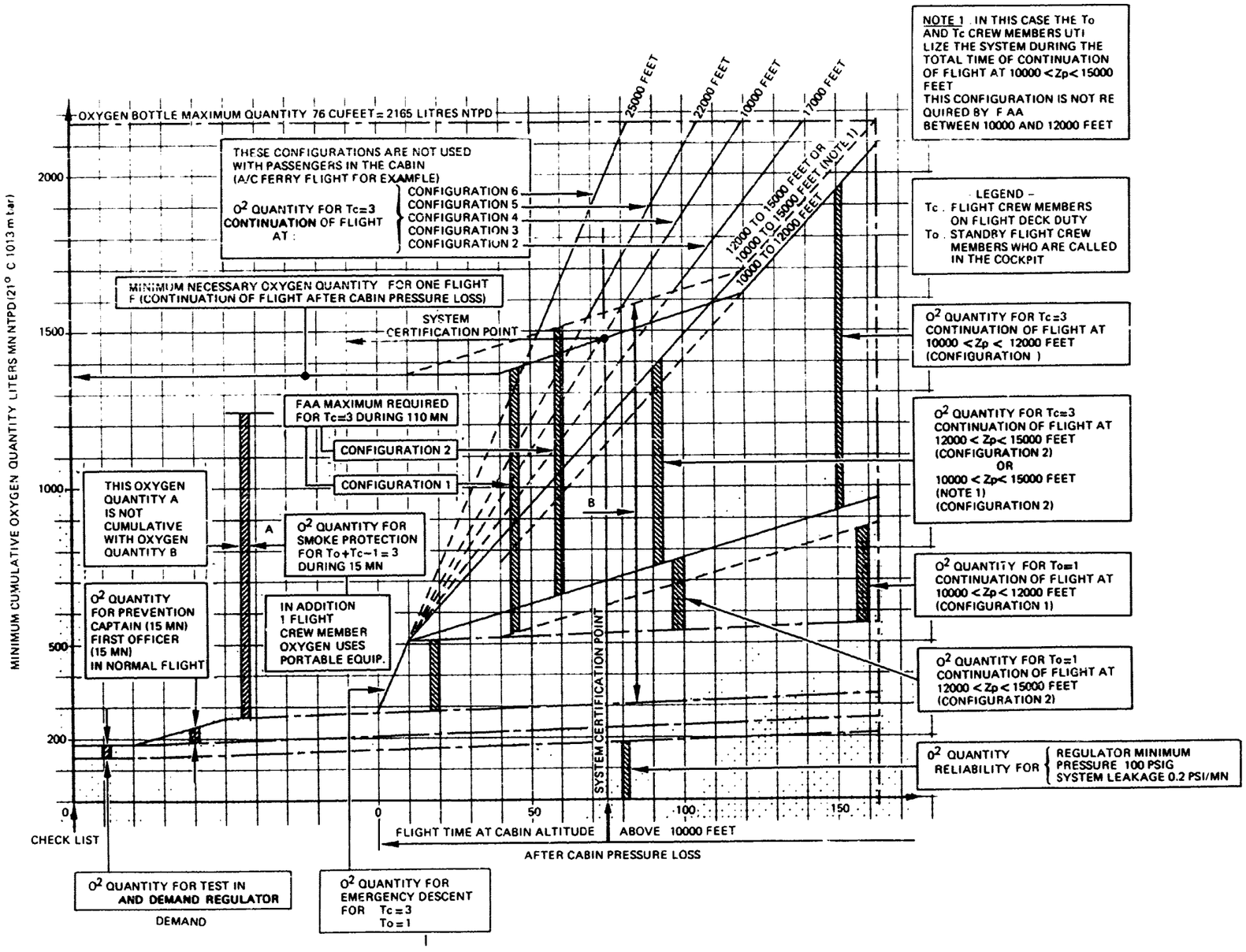
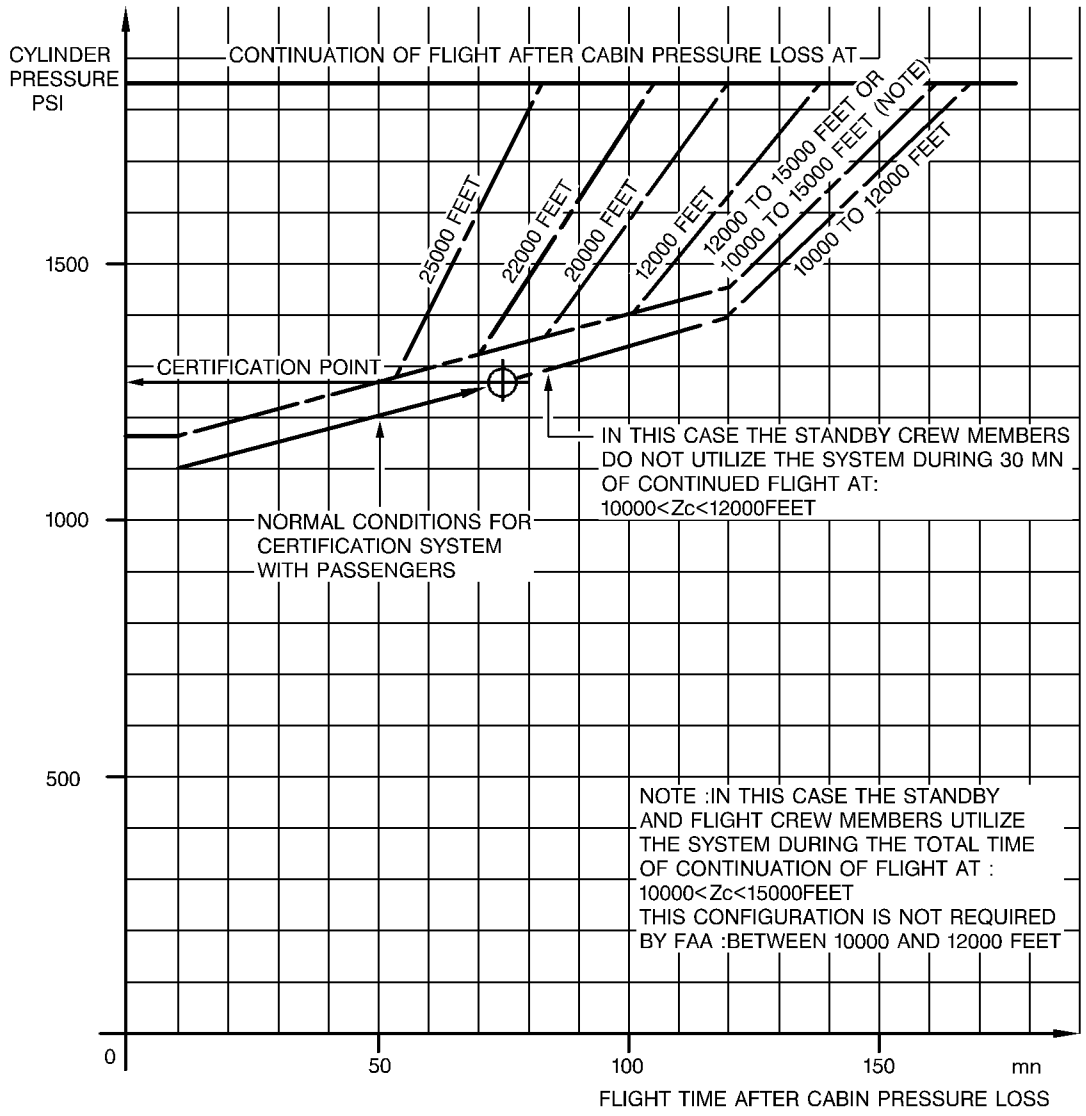
Minimum Oxygen Quantity General Calculations
Figure 012

R


OXYGEN BOTTLE MAXIMUM QUANTITY 76 CUFEET= 2165 LITRES NTPD
25000 FEET
22000 FEET
10000 FEET
17000 FEET
NOTE 1 IN THIS CASE THE To AND Tc CREW MEMBERS UTI LIZE THE SYSTEM DURING THE TOTAL TIME OF CONTINUATION OF FLIGHT AT 10000 < Zp < 15000 FEET
THIS CONFIGURATION IS NOT RE QUIRED BY F AA BETWEEN 10000 AND 12000 FEET
THESE CONFIGURATIONS ARE NOT USED WITH PASSENGERS IN THE CABIN (A/C FERRY FLIGHT FOR EXAMFLE)
O2 QUANTITY FOR Tc=3 CONTINUATION OF FLIGHT AT :
CONFIGURATION 6
CONFIGURATION 5
CONFIGURATION 4
CONFIGURATION 3
CONFIGURATION 2
12000 TO 15000 FEET OR
10000 TO 15000 FEET (NOTE 1)
10000 TO 12000 FEET
LEGEND –
Tc . FLIGHT CREW MEMBERS ON FLIGHT DECK DUTY
To . STANDBY FLIGHT CREW MEMBERS WHO ARE CALLED IN THE COCKPIT
MINIMUM NECESSARY OXYGEN QUANTITY FOR ONE FLIGHT F (CONTINUATION OF FLIGHT AFTER CABIN PRESSURE LOSS)
SYSTEM CERTIFICATION POINT
O2 QUANTITY FOR Tc=3 CONTINUATION OF FLIGHT AT 10000 < Zp < 12000 FEET (CONFIGURATION)
FAA MAXIMUM REQUIRED FOR Tc=3 DURING 110 MN
CONFIGURATION 2
CONFIGURATION 1
O2 QUANTITY FOR Tc=3 CONTINUATION OF FLIGHT AT 12000 < Zp < 15000 FEET (CONFIGURATION 2)
OR
10000 < Zp < 15000 FEET (NOTE 1) (CONFIGURATION 2)
THIS OXYGEN QUANTITY A IS NOT CUMULATIVE WITH OXYGEN QUANTITY B
A
O2 QUANTITY FOR SMOKE PROTECTION FOR To+Tc−1 = 3 DURING 15 MN
B
O2 QUANTITY FOR To=1 CONTINUATION OF FLIGHT AT 10000 < Zp < 12000 FEET (CONFIGURATION 1)
O2 QUANTITY FOR PREVENTION CAPTAIN (15 MN) FIRST OFFICER (15 MN) IN NORMAL FLIGHT
IN ADDITION 1 FLIGHT CREW MEMBER OXYGEN USES PORTABLE EQUIP.
O2 QUANTITY FOR To=1 CONTINUATION OF FLIGHT AT 12000 < Zp < 15000 FEET (CONFIGURATION 2)
O2 QUANTITY RELIABILITY FOR { REGULATOR MINIMUM PRESSURE 100 PSIG
SYSTEM LEAKAGE 0.2 PSI/MN
MINIMUM CUMULATIVE OXYGEN QUANTITY LITERS MN NTPD (21° C 1013 m bar)
2000
1500
1000
500
200
0
0
50
100
150
FLIGHT TIME AT CABIN ALTITUDE ABOVE 10000 FEET
AFTER CABIN PRESSURE LOSS
SYSTEM CERTIFICATION POINT
CHECK LIST
O2 QUANTITY FOR TEST IN AND DEMAND REGULATOR
DEMAND
O2 QUANTITY FOR EMERGENCY DESCENT FOR Tc=3 To=1

Minimum Oxygen Cylinder Quantity Calculations
Figure 013

BM5 35 12 00 C CJMO


CYLINDER PRESSURE PSI
CONTINUATION OF FLIGHT AFTER CABIN PRESSURE LOSS AT
25000 FEET
22000 FEET
20000 FEET
12000 FEET
12000 TO 15000 FEET OR 10000 TO 15000 FEET (NOTE)
10000 TO 12000 FEET
1500
CERTIFICATION POINT
IN THIS CASE THE STANDBY CREW MEMBERS DO NOT UTILIZE THE SYSTEM DURING 30 MN OF CONTINUED FLIGHT AT:
10000<Zc<12000FEET
1000
NORMAL CONDITIONS FOR CERTIFICATION SYSTEM WITH PASSENGERS
500
NOTE :IN THIS CASE THE STANDBY AND FLIGHT CREW MEMBERS UTILIZE THE SYSTEM DURING THE TOTAL TIME OF CONTINUATION OF FLIGHT AT :
10000<Zc<15000FEET
THIS CONFIGURATION IS NOT REQUIRED BY FAA :BETWEEN 10000 AND 12000 FEET
0
50
100
150
mn
FLIGHT TIME AFTER CABIN PRESSURE LOSS

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Minimum Oxygen Cylinder Pressure Calculations
Figure 014

R

box, or even if the mask remains outside the stowage box, by momentarily moving the control slide downwards, which prevents the flag from appearing.

(2)Control of harness (Ref. Fig. 017)

Harness inflation, carried out by action on the right clip simultaneously with the action on the two clips provided to withdraw the mask from its box, is automatic and continues as long as the hand acts on the control.

(3)Normal 100% control of regulator supply (Ref. Fig. 018)

- 100% configuration ; pure oxygen without overpressure with automatic locking in this position ;
- NORMAL configuration ; air/oxygen dilution, 100 % obtained automatically when cabin altitude, in the event of depressurization, reaches or exceeds 35000 feet

This configuration is obtained by acting simultaneously on the locking control and on the N-100 % selector.

The normal required positions are the following :

	100 % Selection
- Check-list before flight	: 100 %
- Smoke emission	: 100 %
- Cabin pressurization loss	
Emergency descent	: 100 %
Flight continuation	: Normal

(4)Overpressure control

(Ref. Fig. 019)

An emergency rotation knob permits two configurations :

- Momentary overpressure configuration by pressing the knob (this instable position is frequently called "sweeping" configuration)
- Permanent overpressure configuration by rotating the knob in the direction indicated by the arrow (this position is stable)

In both configurations, an overpressure < 3 mbars generated by a continuous flow, is created in the mask face piece

The normal required positions are as follows :

- Normal flight conditions : no overpressure
- Abnormal flight conditions

Possibility to achieve a momentary or permanent overpressure. This overpressure, which must always be limited, affords the following advantages :

(a)Cabin pressure loss :

Less resistance to inhalation

(b)Smoke emissions :

- smoke elimination from the mask envelope
- less resistance to inhalation

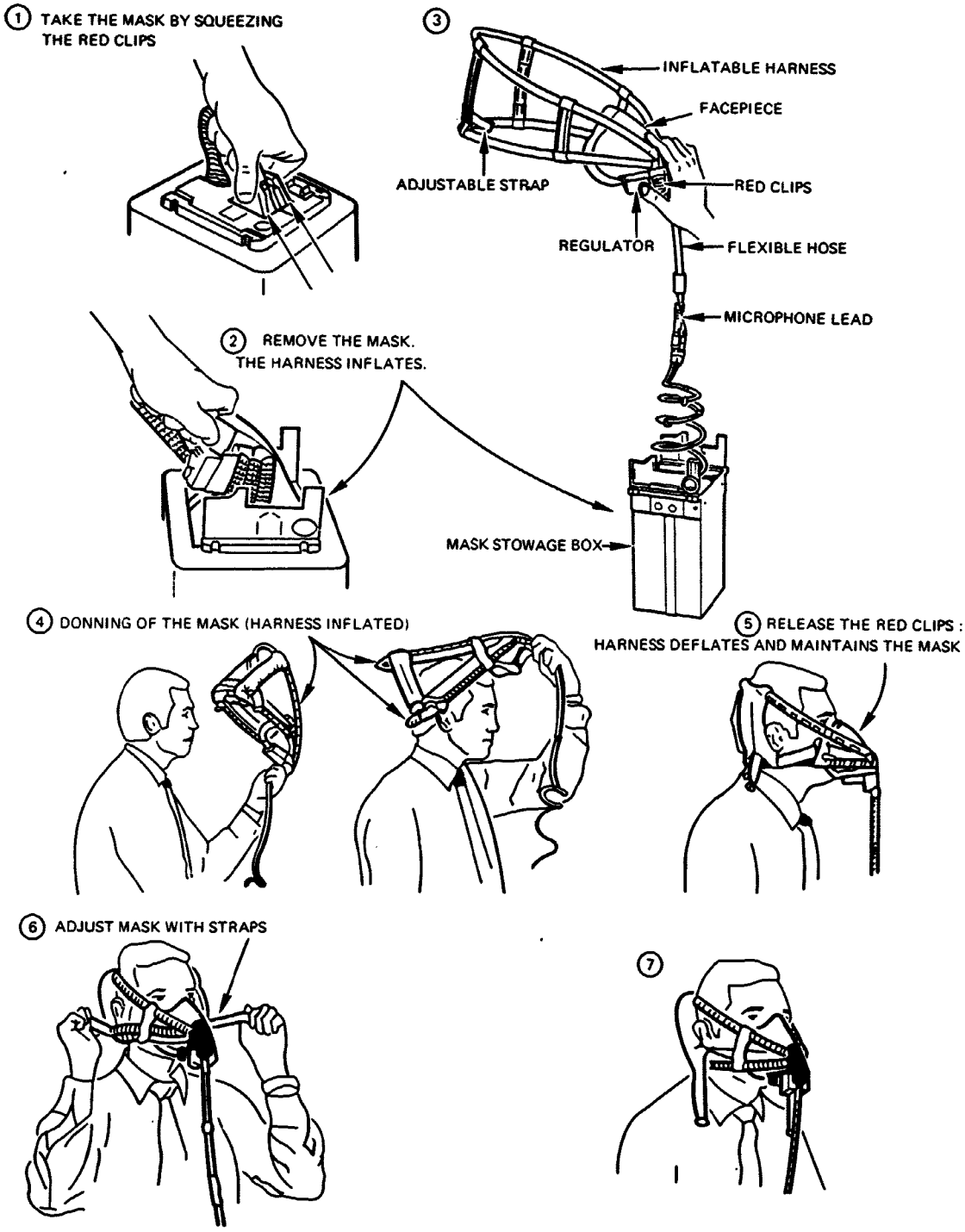
B. Quick - Donning Oxygen Mask Stowage (Ref. Fig. 020, 021, 022)

C. Ground Tests

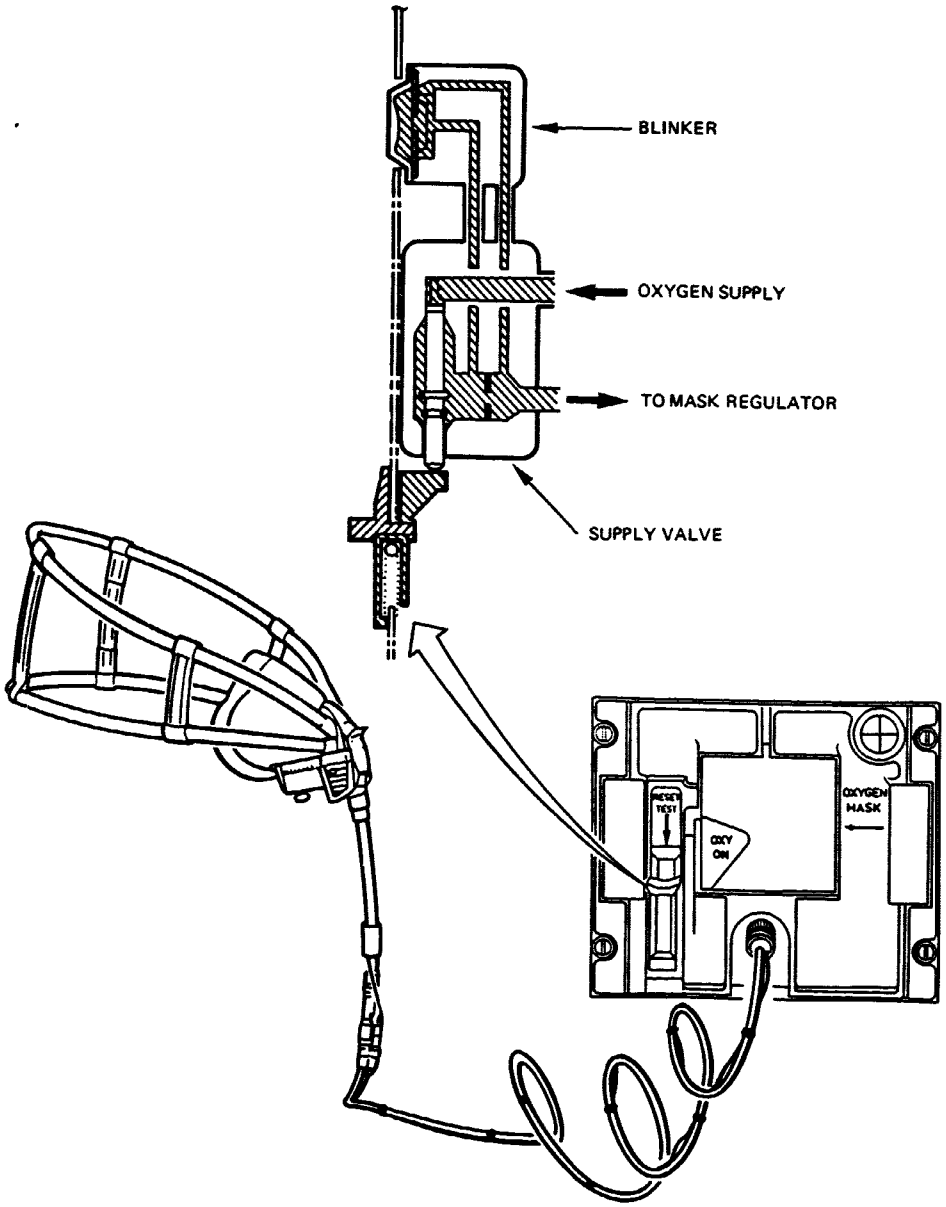
(1)Periodical tests performed by the maintenance personnel

The distribution system leakage test must be performed from an exterior test bench through the test port.

- After removal of a component



Quick-Donning Oxygen Mask Operational Steps
Figure 015



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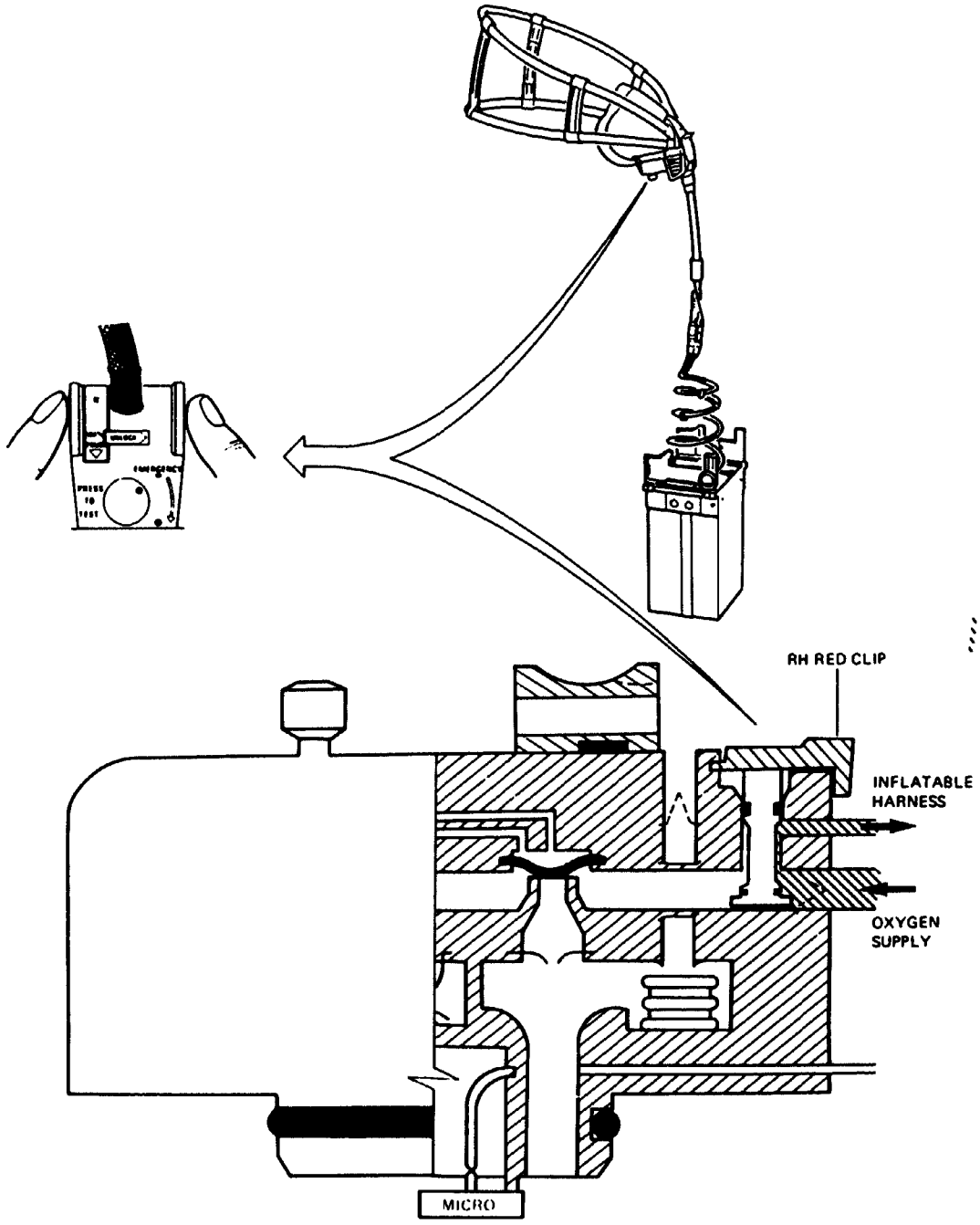
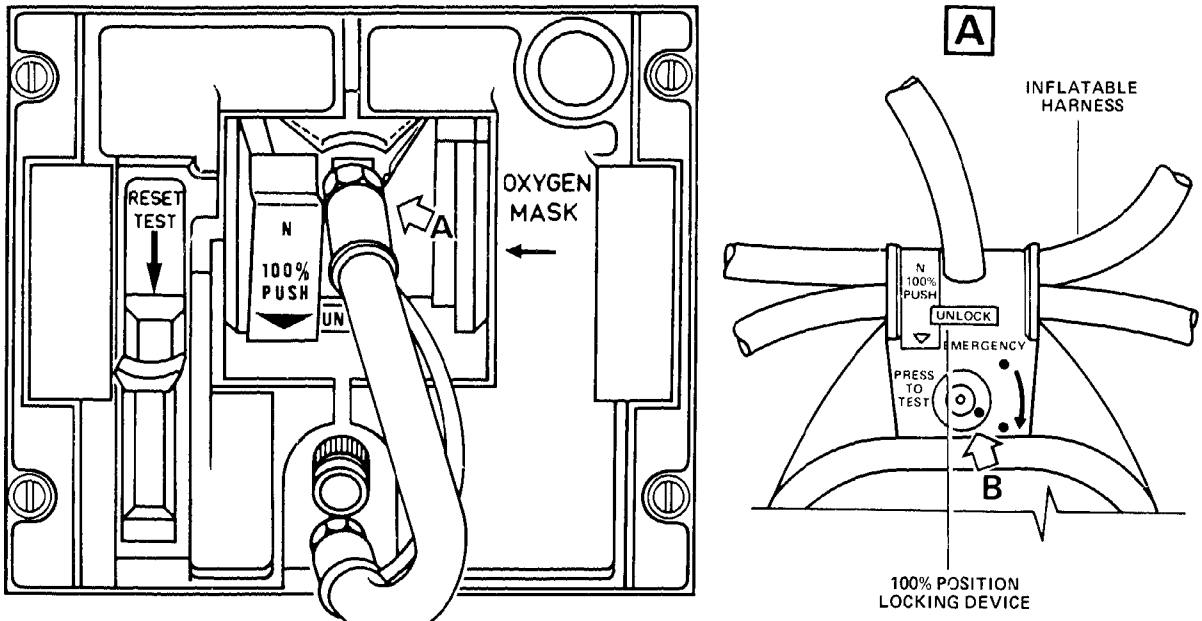
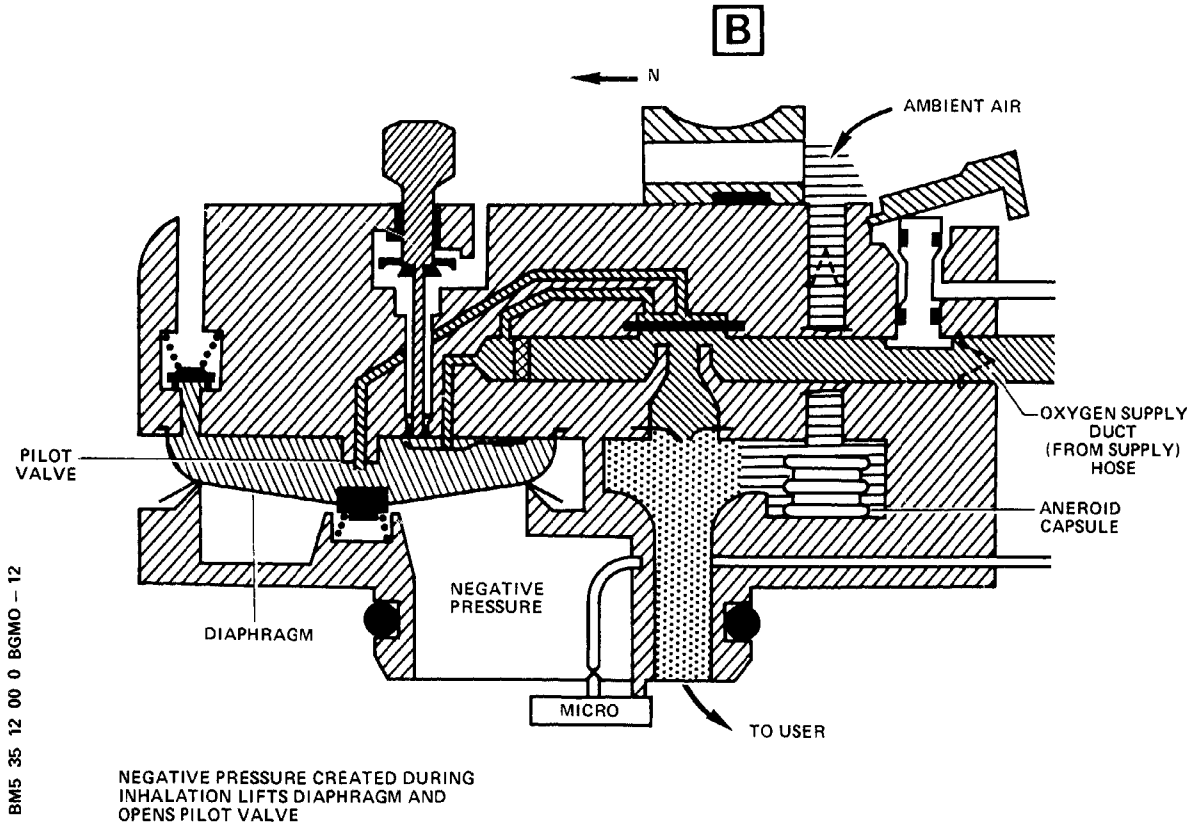
Use of Quick-Donning Oxygen Mask with Stowage Box Closed
Figure 016



Inflatable Harness Operation
Figure 017

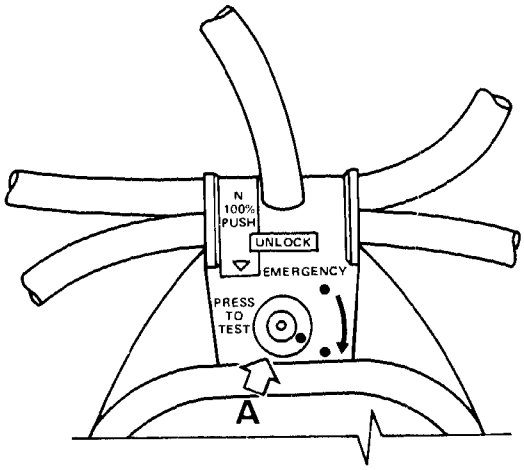


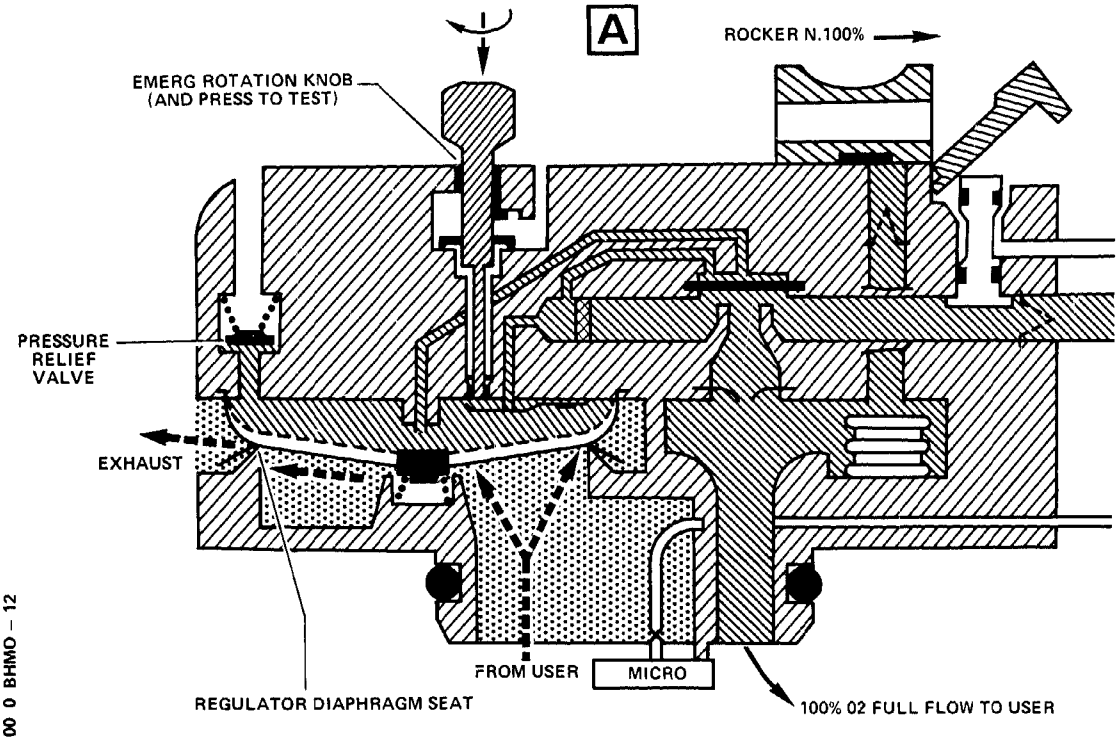


Quick-Donning Oxygen Mask Regulator Normal -

16/11/89 AS

Figure 018





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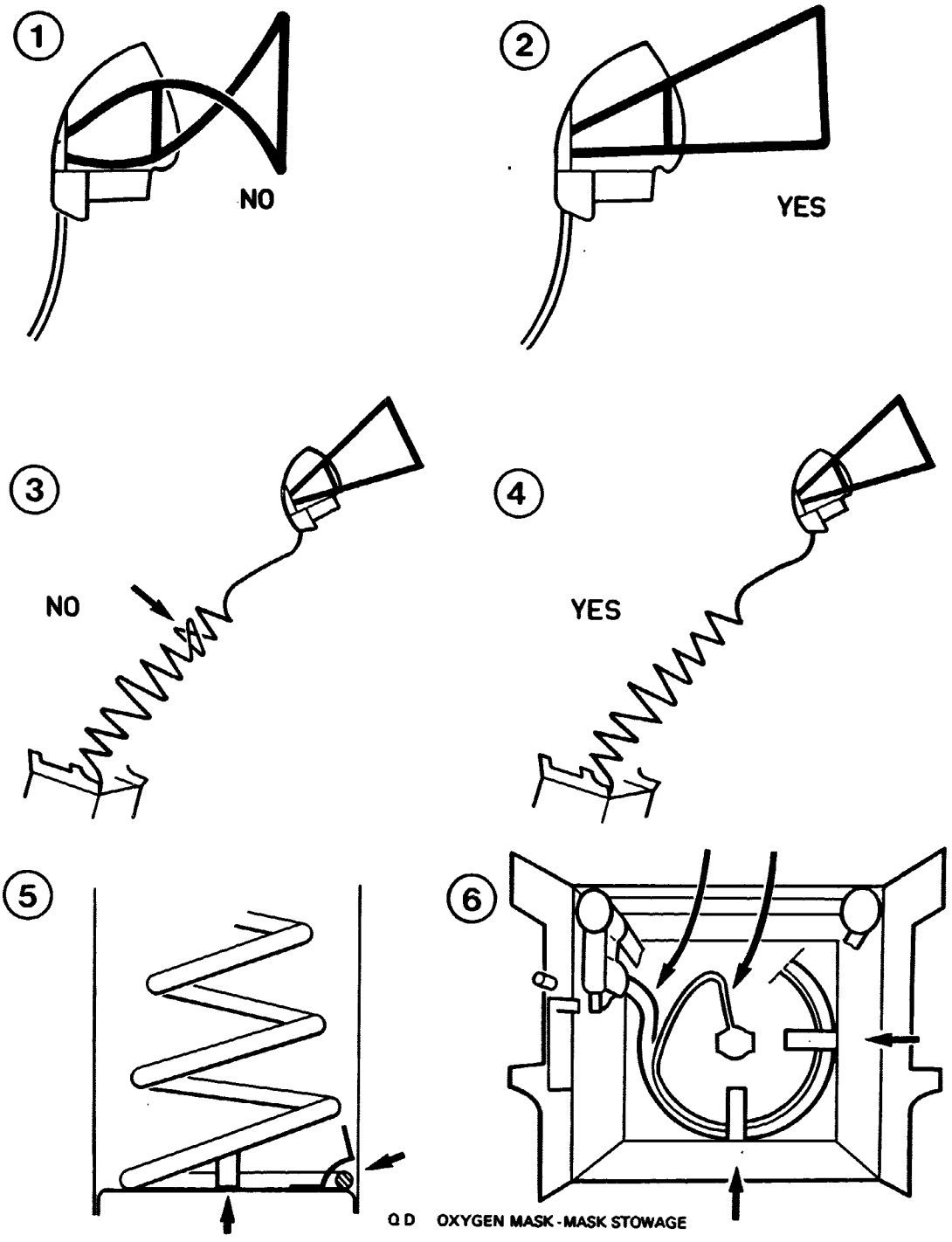
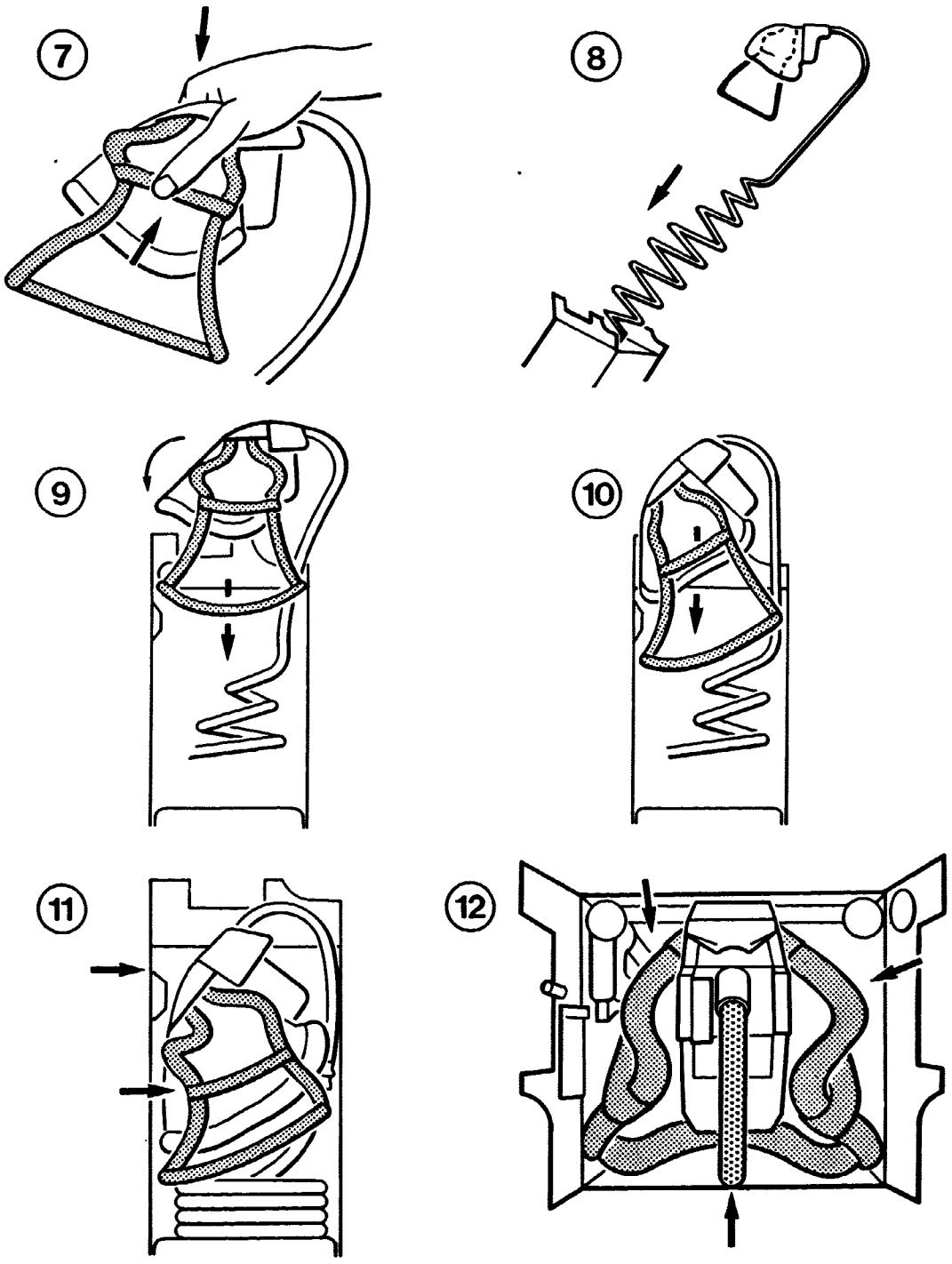
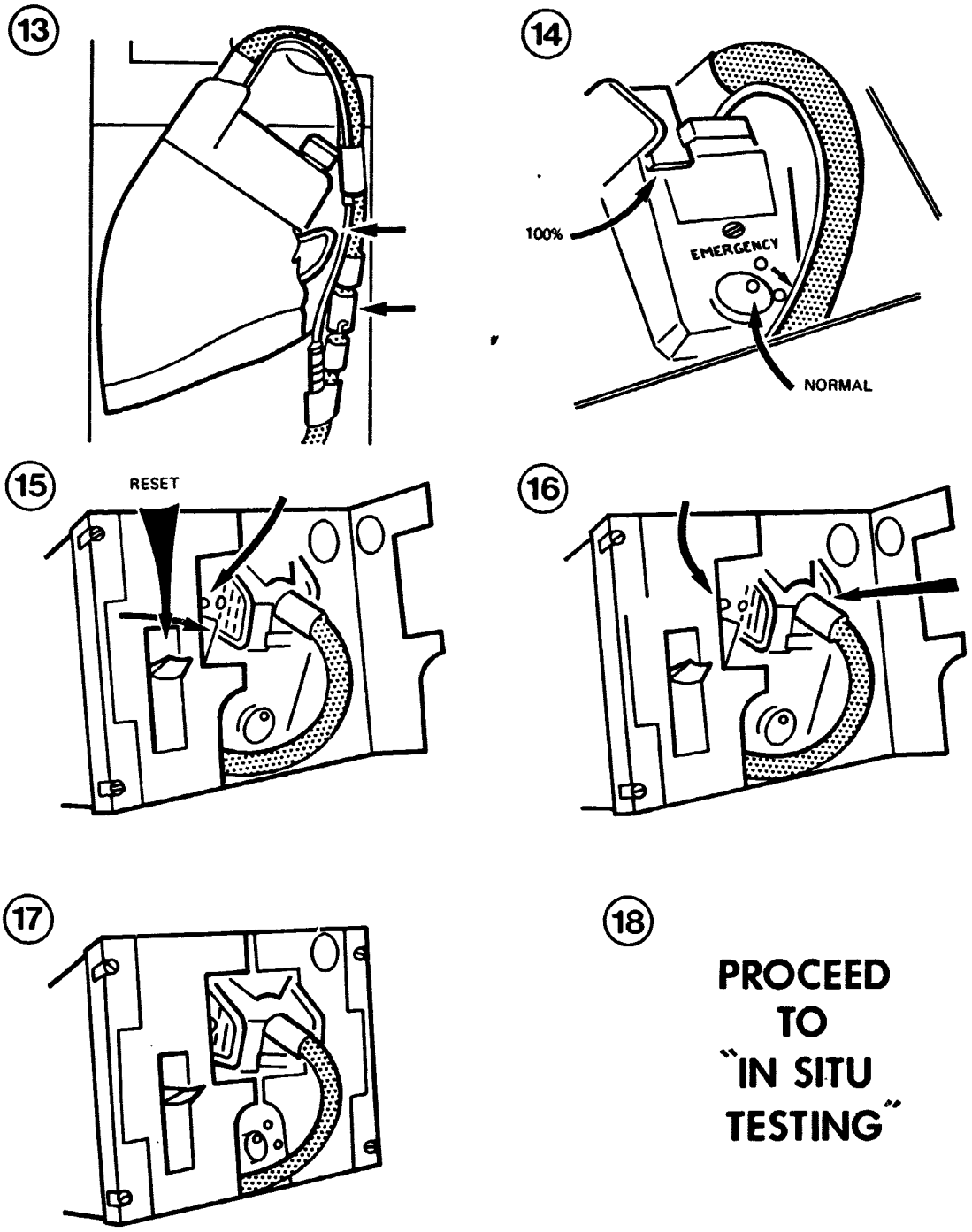
Quick - Donning Oxygen Mask Regulator - Emergency Selection
Figure 019



Quick-Donning Mask Stowage Operational Sequence
Figure 020



Quick-Donning Mask Stowage Operational Sequence
Figure 021



Quick-Donning Mask Stowage Operational Sequence
Figure 022

R - During periodical inspection

(2)Tests performed before and after flight by the flight crew

(a)Pre-flight tests

The following operations must be performed in sequence :

1 On the control and monitoring panel

Pushbutton switch : OFF legend on

Low pressure indicator : pressure indication equal or close to 0 thus proving that post-flight tests have been performed and that the oxygen supply valve is closed.

High pressure indicator : pressure indication must be that selected by the flight crew for the scheduled flight (Ref. Fig. 014)

Pushbutton switch : OFF legend off.

Low pressure indicator : indication of pressure shows that the oxygen supply valve operates correctly.

Pressure indication must stabilize in the green range.

2 At the mask stowage box

Perform a box test in-situ following the operations described (Ref. Fig. 023, 024, 025)

The analysis of the actions carried out is as follows :

Action 1 checks :

- blinker operation
- regulator supply
- system sealing downstream of the valve as well as regulator sealing

Action 2 checks :

- harness supply and sealing

Action 3 checks :

- regulator demand system operation
- regulator sealing
- mask microphone operation

Action 4 checks :

- valve control slide operation and eliminates all oxygen pressure in the system downstream of this valve.

Action 5 checks :

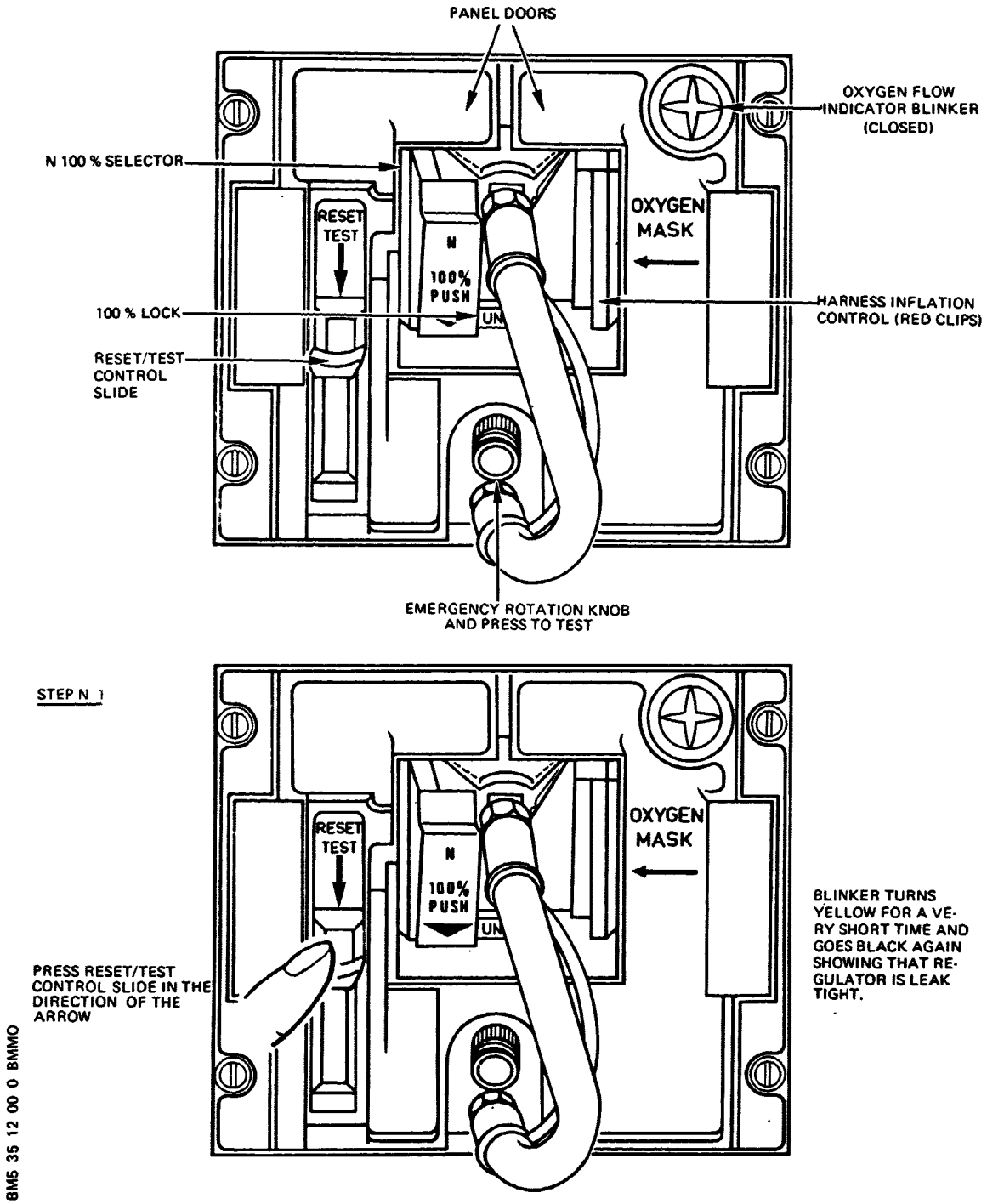
- the mechanical operation of the Normal 100 % control as well as its locking on the 100 % position

(b)Post flight tests

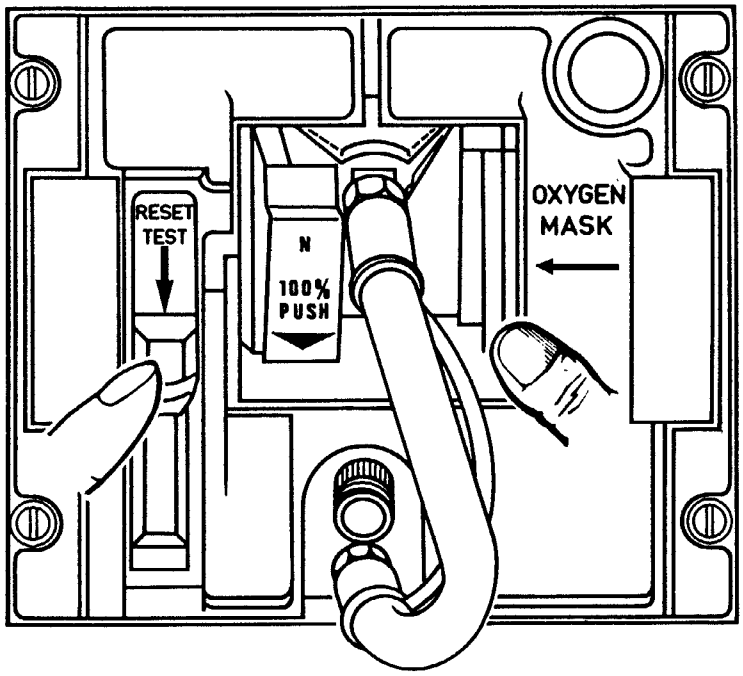
The test below is to be carried out for the two following reasons :

- elimination of all oxygen pressure in the distribution systems
- checking of the operating condition for the following equipment :
  - emergency rotation knob
  - supply valve
  - low pressure indicator

The test consists in a crew member acting simultaneously on the valve control slide and on the emergency rotation knob of its mask stowage box and in checking the pressure drops on the low pressure indicator on the control and monitoring panel



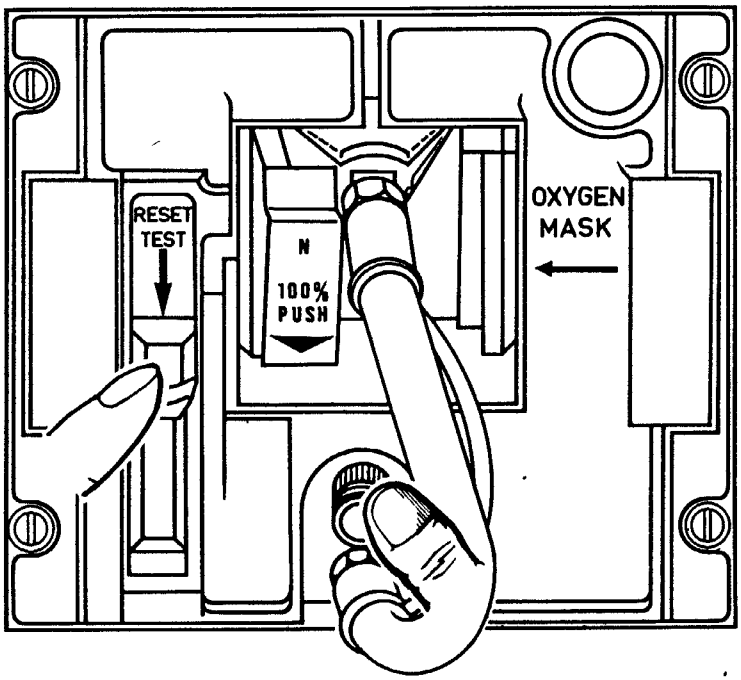
Quick-Donning Oxygen Mask in Situ Check Out
Operational Step
Figure 023



STEP N 2

MAINTAIN THE RESET TEST CONTROL SLIDE IN THE DOWN POSITION

PRESS THE HARNESS INFLATION CONTROL AND OBSERVE THE BLINKER TURNS YELLOW FOR A VERY SHORT TIME AND GOES BLACK AGAIN SHOWING THAT HARNESS IS LEAK TIGHT



STEP N 3

MAINTAIN THE RESET/ TEST CONTROL/SLIDE IN THE DOWN POSITION

PRESS THE SPRING LOADED EMERGENCY KNOB AND OBSERVE THE BLINKER TURNS YELLOW AND REMAINS IN THIS CONDITION FOR AS LONG AS THE EMERGENCY KNOB IS PRESSED TO TEST THE CORRECT OPERATION OF THE MASK REGULATE.

NOTE : THE MASK MICROPHONE MAY ALSO BE CHECKED AT THIS TIME BY CONNECTING IT TO THE INTERPHONE SYSTEM, THE SOUND OF OXYGEN FLOWING PAST THE MICROPHONE CAN BE HEARD EITHER THROUGH THE LOUD SPEAKERS OR THROUGH THE HEAD SET (EXCEPT FOR THE FOLDING SEAT OCCUPANT MASK.)

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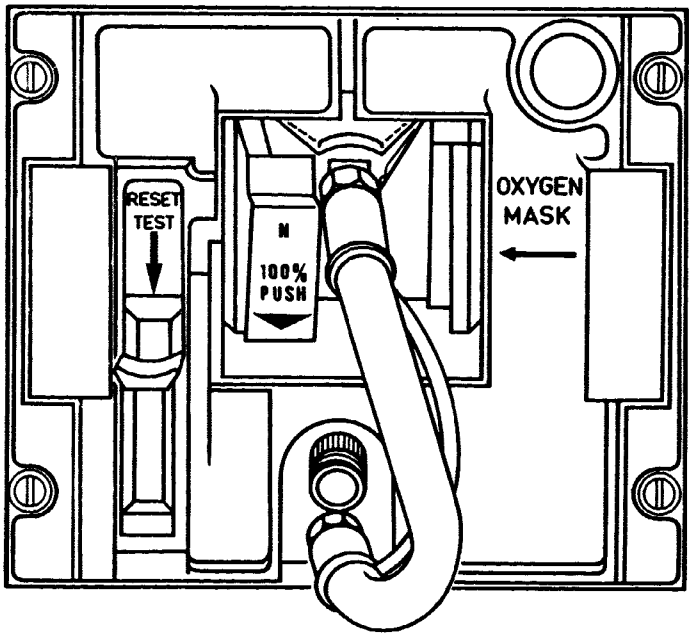
Quick-Donning Oxygen Mask in Situ Check Out
Operational Step
Figure 024

STEPS N° 4 AND N° 5

WHEN THE 3 PREVIOUS TESTS HAVE BEEN CARRIED OUT ENSURE THAT :

- RESET/TEST CONTROL SLIDE RETURNS TO THE UP POSITION
- N - 100 % SELECTOR IS LOCKED IN THE 100 % POSITION



BM5 35 12 00 0 BQMO

Quick-Donning Oxygen Mask in Situ Check Out
Operational Step
Figure 025

R OXYGEN DISTRIBUTION - MAINTENANCE PRACTICES

R 1. Reason for the Job
Replacement of the overboard discharge indicator and cleaning of the oxygen hoses.

2. Equipment and Materials

ITEM	DESIGNATION
A.	Access Platform 2.60 m (8 ft.6 in.)
B. Material No. 05-004	Special Materials (Ref. 20-31-00)
C.	Torque Wrench 0 to 6 m.daN (0 to 44 lbf.ft)
D.	Circuit Breaker Safety Clips
E.	Retaining Ring
F.	Indicator Disc
G.	Conical Seal
H.	Blanking Plugs/Caps
J.	Sealed Vinyl Bag
K.	Adjustable Access Platform
L.	LP Air Source (filtered, no oil)
M.	Lint-free Cloth
Referenced Procedure - 24-41-00, P. Block 301	Servicing AC External Power Control

3. Procedure

WARNING : PERSONNEL IN CHARGE OF CARRYING OUT THE ACTIONS BELOW MUST BE AWARE OF THE RISKS INVOLVED IN HANDLING OXYGEN, WHICH ENHANCES COMBUSTION IN THE PRESENCE OF FUEL, AND BECOMES EXPLOSIVE IN THE PRESENCE OF HYDROCARBONS (FUELS, LUBRICANTS).

A. Job Set-Up

WARNING : BEFORE ANY ACTION, PERSONNEL SHOULD CLEAN TOOLS AND ENSURE THAT THEIR HANDS ARE CLEAN TO AVOID CONTAMINATION.

(1)Position access platform at forward cargo compartment door.
(2)Open forward cargo compartment door.
(3)Open access door 132AZ.
(4)Energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(5)Open oxygen cylinder storage compartment access door.
(6)Check that oxygen supply valve is open.
(7)Close cylinder valve.
(8)Bleed oxygen systems using a crew mask and operate the RESET TEST control slide until LP indicator reading is at its lowest.
(9)Open, safety and tag the following circuit breaker :

PANEL	SERVICE	IDENT.	LOCATION
22VU	OXYGEN/CREW	18HT	208/B28

B. Replacement of the Overboard Discharge Indicator

WARNING : BEFORE DISASSEMBLING, MAKE CERTAIN THAT SYSTEMS ARE NOT PRESSURIZED.
WHEN DISASSEMBLED TEMPORARILY, ANY PIPE OR UNIT SHOULD HAVE THE ENDS PROTECTED BY A DRY AND CLEAN METAL OR PLASTIC PLUG, AND BE PLACED IN A SEALED VINYL BAG.

R **ON A/C 001-104,

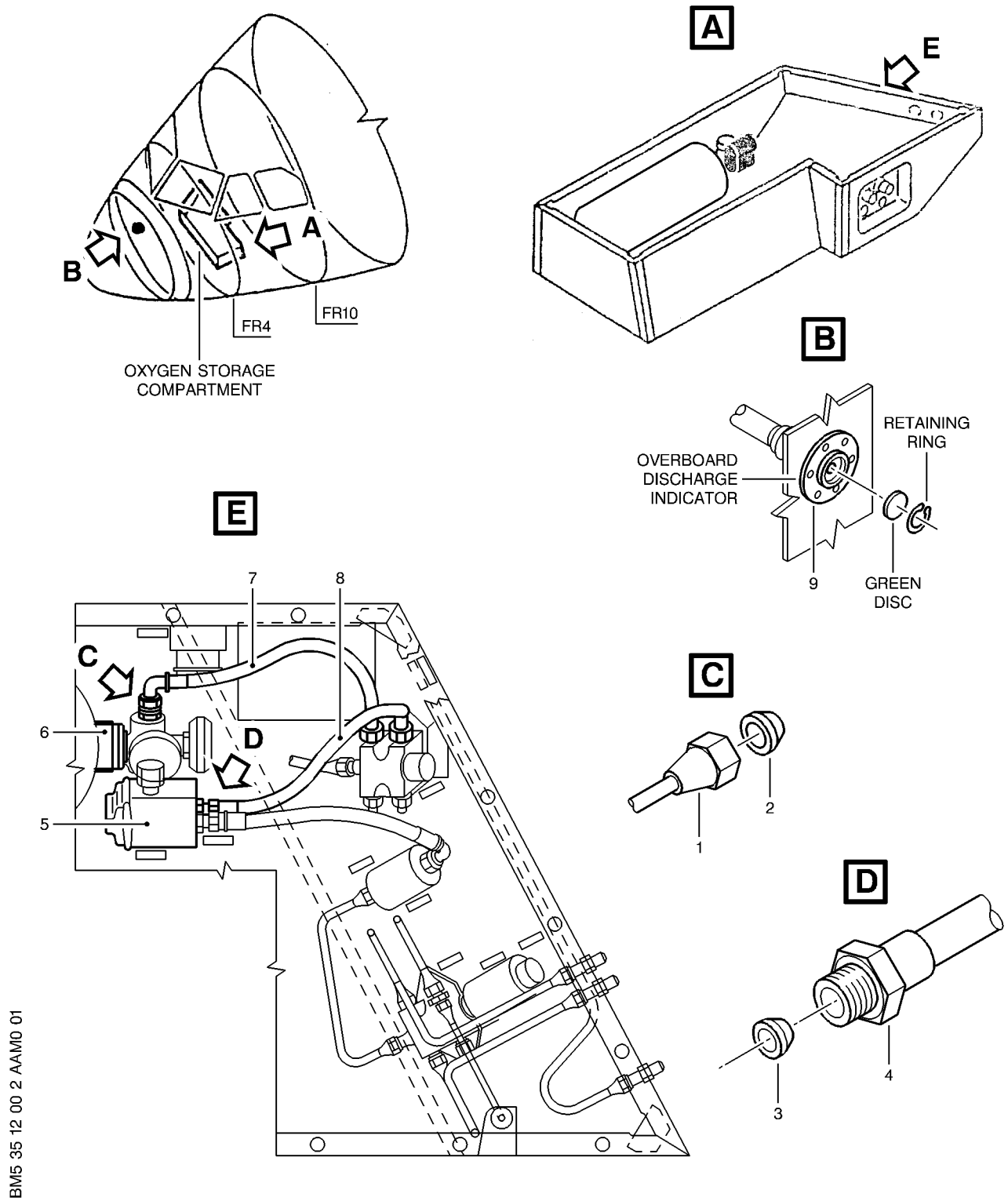
(Ref. Fig. 201)

R **ON A/C 105-200,

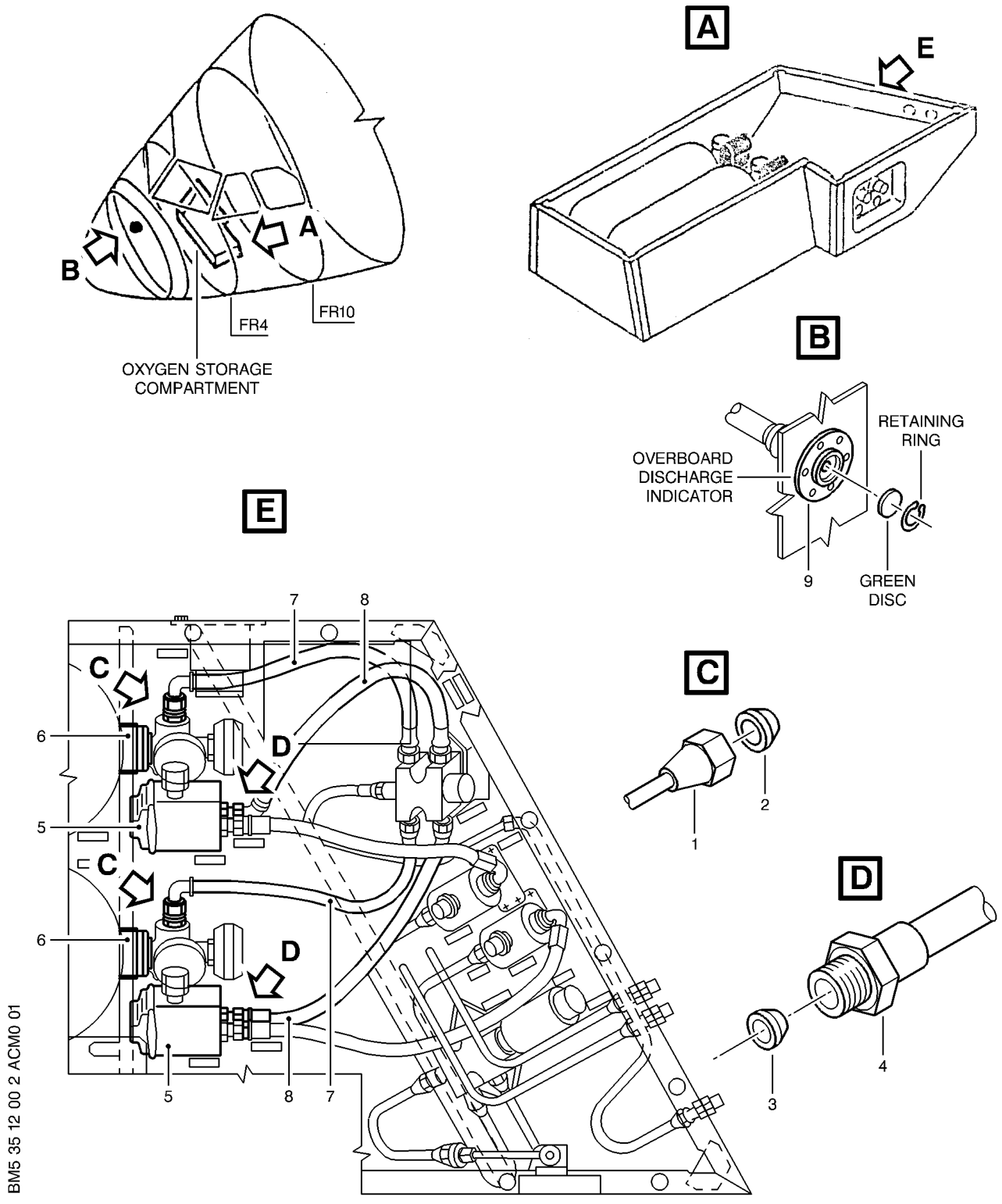
(Ref. Fig. 202)

R **ON A/C ALL

(1)Disconnect the oxygen hose (7) from the oxygen cylinder valve (6)
  (a)Disconnect the coupling (1) and discard the conical seal (2).
  (b)Put a blanking plug on the oxygen cylinder valve (6).
  (c)Put a sealed vinyl bag on the hose (7).
(2)Disconnect the oxygen hose (8) from the manifold (5)
  (a)Disconnect the coupling (4) and discard the conical seal (3).
  (b)Put a blanking plug on the manifold (5).
  (c)Put a sealed vinyl bag on the hose (8).
(3)Blow air through the hoses connected to the overboard discharge indicator (9)
  (a)Use a clean LP air source (filtered, no oil).
  (b)Remove the sealed vinyl bag from the hoses (7) and (8).
  (c)Blow air through the hoses two or three times (blow them one after the other to make sure that there are no unwanted objects in the system).
  (d)Put blanking caps on the hoses (7) and (8).
(4)Clean the body of the overboard discharge indicator (9)
  (a)Put an adjustable access platform in position at zone 122.
  (b)On the aircraft skin, remove and discard the retaining ring.
  (c)Clean the body of the indicator with a clean lint-free cloth.
(5)Install the disc of the overboard discharge indicator (9)
  (a)Install the new disc with the green reflecting surface on the external side.
  (b)Install the new retaining ring with the rounded edges on the external side.
(6)Connect the oxygen hose (8) to the manifold (5)
  (a)Remove the sealed vinyl bag and the blanking cap from the hose (8).
  (b)Install a new conical seal (3) on the coupling (4).
  (c)Remove the blanking plug from the manifold (5).
  (d)Connect the coupling (4) to the manifold (5) and TORQUE to between 2.03 and 2.26 m.daN (14.8 and 16.4 lbf.ft).
(7)Connect oxygen hose (7) to the oxygen cylinder valve (6)
  (a)Remove the sealed vinyl bag and the blanking cap from the hose (7).
  (b)Remove the blanking plug from the oxygen cylinder valve (6).



Overboard Discharge Indicator
Figure 201



Overboard Discharge Indicator
Figure 202

(c)Install a new conical seal (2) on the coupling (1).
(d)Connect the coupling (1) to the oxygen cylinder valve (6) and TORQUE to between 1.8 and 2 m.daN (13.3 and 14.7 lbf.ft).

C. Test
(1)Apply Special Materials (Material No. 05-004) to each union.
(2)Open cylinder valve very slowly 3 to 4 turns.
(3)Wait approximately 90 seconds for system pressure to stabilize.
(4)Fully open valve.
(5)Check for leakage.
(6)Wipe off Special Materials (Material No. 05-004) from each union.

D. Close-Up
(1)Make sure that oxygen storage compartment is clean and clear of tools and miscellaneous items of equipment.
(2)Close oxygen storage compartment access door.
(3)Close access door 132AZ.
(4)Close forward cargo compartment door.
(5)Close circuit breaker 18HT.
(6)De-energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(7)Remove access platforms.

R 1. Operational Test

A. Reason for the Job

R (1)Operational test of cockpit and courier solenoid valves control

B. Equipment and Materials

ITEM	DESIGNATION
(1)	Access Platform 2 m (6 ft. 7 in.)
Referenced Procedure - 24-41-00, P. Block 301	AC External Power Control

C. Procedure

(1)Job set-up

(a)Position access platform

(b)Open access door 121BL.

(c)In avionics compartment open access door to cylinder storage compartment.

(d)Energize the aircraft electrical network (Ref. 24-41-00, P. Block 301). Make certain that electronics racks ventilation is correct.

(e)Make certain that the following circuit breaker is closed :

PANEL	SERVICE	IDENT.	LOCATION
22VU	CREW OXYGEN	18HT	208/B28

(2)Test

ACTION	RESULT
(a)On panel 435VU : - press LO PR SUPPLY pushbutton switch (on position).	On panel 435VU : - LP gage pointer is in green band.
(b)In oxygen cylinder storage compartment - close cylinder valve.	On panel 435VU : - LP gage pointer does not move.
(c)On one of the mask stowage boxes, Move TEST RESET control slide several times	On panel 435VU :. Low pressure gage pointer moves to zero.
(d)In oxygen cylinder storage compartment - open cylinder valve.	On panel 435VU : - LP gage pointer returns to Green band.

(3)Close-up

(a)On panel 435VU press to release LO PR SUPPLY pushbutton switch (OFF

position).
(b)In avionics compartment, close access door to oxygen cylinder storage compartment.
(c)Close access door 121BL.
(d)Remove access platform
(e)De-energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).

R

OXYGEN DISTRIBUTION - INSPECTION/CHECK

1. Reason for the Job

A. Visual inspection of oxygen distribution system

2. Equipment and Materials

ITEM	DESIGNATION
A.	Access Platform 2 m (6 ft. 7 in.)

3. Procedure

WARNING : PERSONNEL IN CHARGE OF CARRYING OUT THE ACTIONS BELOW MUST BE AWARE OF THE RISKS INVOLVED IN HANDLING OXYGEN, WHICH ENHANCES COMBUSTION IN THE PRESENCE OF FUEL AND BECOMES EXPLOSIVE IN THE PRESENCE OF HYDROCARBONS (FUELS, LUBRICANTS).

A. Job Set-Up
(1)Position access platform.
(2)Open access door 121BL.

B. Inspection/Check
(1)In avionics compartment and oxygen storage compartment :
(a)Make certain that LH and RH circuit distribution lines are free of damage or corrosion, and are not flattened or kinked.
(b)Check that these lines and their protective sleeves are secured correctly, and that the flight control cables neither rub against them nor against the protective sheaths on the couplings.
(c)Check that the coupling sheath ties are in correct condition.
(d)Check that couplings are correctly tightened on units.
(e)Make certain that electrical connectors are correctly connected on units.
(2)In flight compartment
(a)Check correct attachment of units (control box, mask stowage boxes).

C. Close-Up
(1)Close access door 121BL.
(2)Remove access platform.

OXYGEN SUPPLY VALVE - REMOVAL/INSTALLATION

1. Equipment and Materials

ITEM	DESIGNATION
A.	Access Platform 2 m (6 ft. 7 in.)
R B. Material No. 05-003B	Special Materials (Ref. 20-31-00)
C. Material No. 05-004	Special Materials (Ref. 20-31-00)
D.	Torque Wrench 0 to 3 m.daN (0 to 22.1 lbf. ft.)
E.	Circuit Breaker Safety Clips.
F.	Sealing Ring - Puritan
Referenced Procedure - 24-41-00, P. Block 301	AC External Power Control

2. Procedure

(Ref. Fig. 401)

WARNING : PERSONNEL IN CHARGE OF CARRYING OUT THE ACTIONS BELOW MUST BE AWARE OF THE RISKS INVOLVED IN HANDLING OXYGEN WHICH ENHANCES COMBUSTION IN THE PRESENCE OF FUEL AND BECOMES EXPLOSIVE IN THE PRESENCE OF HYDROCARBONS (FUELS, LUBRICANTS).

A. Job Set-Up

WARNING : BEFORE ANY ACTION, PERSONNEL SHOULD CLEAN TOOLS AND ENSURE THAT THEIR HANDS ARE CLEAN TO AVOID CONTAMINATION.

(1)Position access platform.
(2)Open access door 121BL.
(3)Open access door to cylinder storage compartment.
(4)Close cylinder valve.
(5)Bleed oxygen LP system using a crew mask and operating the RESET TEST control slide until LP indicator reading is at its lowest.
(6)Open, safety and tag the following circuit breaker :

PANEL	SERVICE	IDENT.	LOCATION
22VU	OXYGEN/CREW	18HT	208/B28

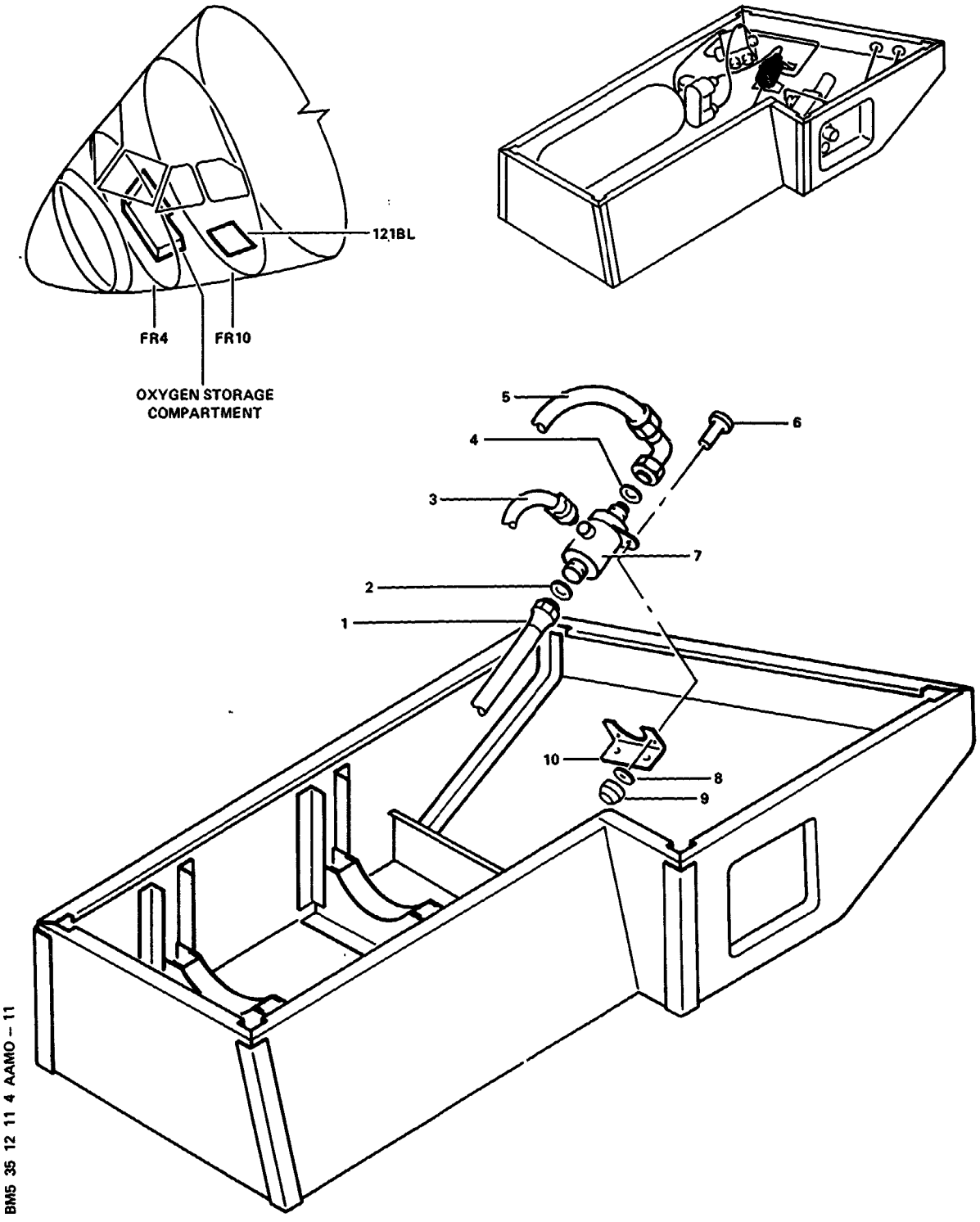
B. Removal

WARNING : BEFORE DISASSEMBLING, MAKE CERTAIN THAT SYSTEMS ARE NOT PRESSURIZED. WHEN DISASSEMBLED TEMPORARILY, ANY PIPE OR UNIT SHOULD HAVE THE ENDS PROTECTED BY A DRY AND CLEAN METAL OR PLASTIC PLUG, AND BE PLACED IN A SEALED VINYL BAG.

(1)Disconnect electrical connector (3).
(2)Disconnect pipes (1) and (5) from oxygen supply valve.
Discard sealing rings (2) and (4).
(3)Remove the two attachment screws (6) with nuts (9) and washers (8).
(4)Remove oxygen supply valve (7).

C. Preparation of Replacement Component

(1)Visually check oxygen supply valve, threading and electrical connection



Oxygen Supply Valve
Figure 401

for correct condition.

D. Installation

R WARNING : NO COMPOUND, EXCEPT SPECIAL MATERIAL No.05-003B MUST BE USED ON NUT THREADS OR ON THE FLARED PORTION OF THE TUBE. THIS COMPOUND SHOULD BE USED SPARINGLY ON ALL FIRST THREE MALE THREADS.

(1)Position oxygen supply valve (7) on its support bracket (10).
(2)Install attachment screws (6), nuts (9) and washers (8).
(3)Install new sealing ring and connect pipes (1) and (5) to valve, and TORQUE union nuts to between 2.03 m.daN and 2.26 m.daN (180 and 200 lbf.in.)
(4)Connect electrical connector.

E. Test

(1)Apply special material No.05-004 to pipe connections.
(2)Remove safety clips and tags, and close circuit breaker 18HT.
(3)Open cylinder valve very slowly, 3 to 4 turns.
(4)Wait approximately 90 seconds for system pressure to stabilize.
(5)Fully open valve.
(6)Energize the aircraft electrical network (Ref. 24-41-00, P. Block 301). Make certain that electronics racks ventilation is correct
(7)On OXYGEN panel 435VU
- on CREW/LO PR SUPPLY pushbutton switch, select OFF legend off.
- make certain that LP gage pointer stabilizes in green band.
(8)Check oxygen supply valve for absence of leakage.
(9)Wipe off special material No.05-004.

F. Close-Up

(1)On OXYGEN panel 435VU
- on CREW/LO PR SUPPLY pushbutton switch, select OFF legend on.
(2)Bleed oxygen LP system.
(3)De-energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(4)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.
(5)Close access door to cylinder storage compartment.
(6)Close access door 121BL.
(7)Remove access platform.

1. Equipment and Materials

ITEM	DESIGNATION
2.	Access Platform 2 m (6 ft. 7 in.)
Referenced Procedure - 35-12-00, P. Block 501	Oxygen Distribution

2. Procedure
(Ref. Fig. 401)

A. Job Set-Up
(1)Position access platform.
(2)Open access door 121BL.
(3)Remove central access door (5) on electronics rack 90VU.
(4)Open, safety and tag the following circuit breaker :

PANEL	SERVICE	IDENT.	LOCATION
22VU	OXYGEN/CREW	18HT	208/B28

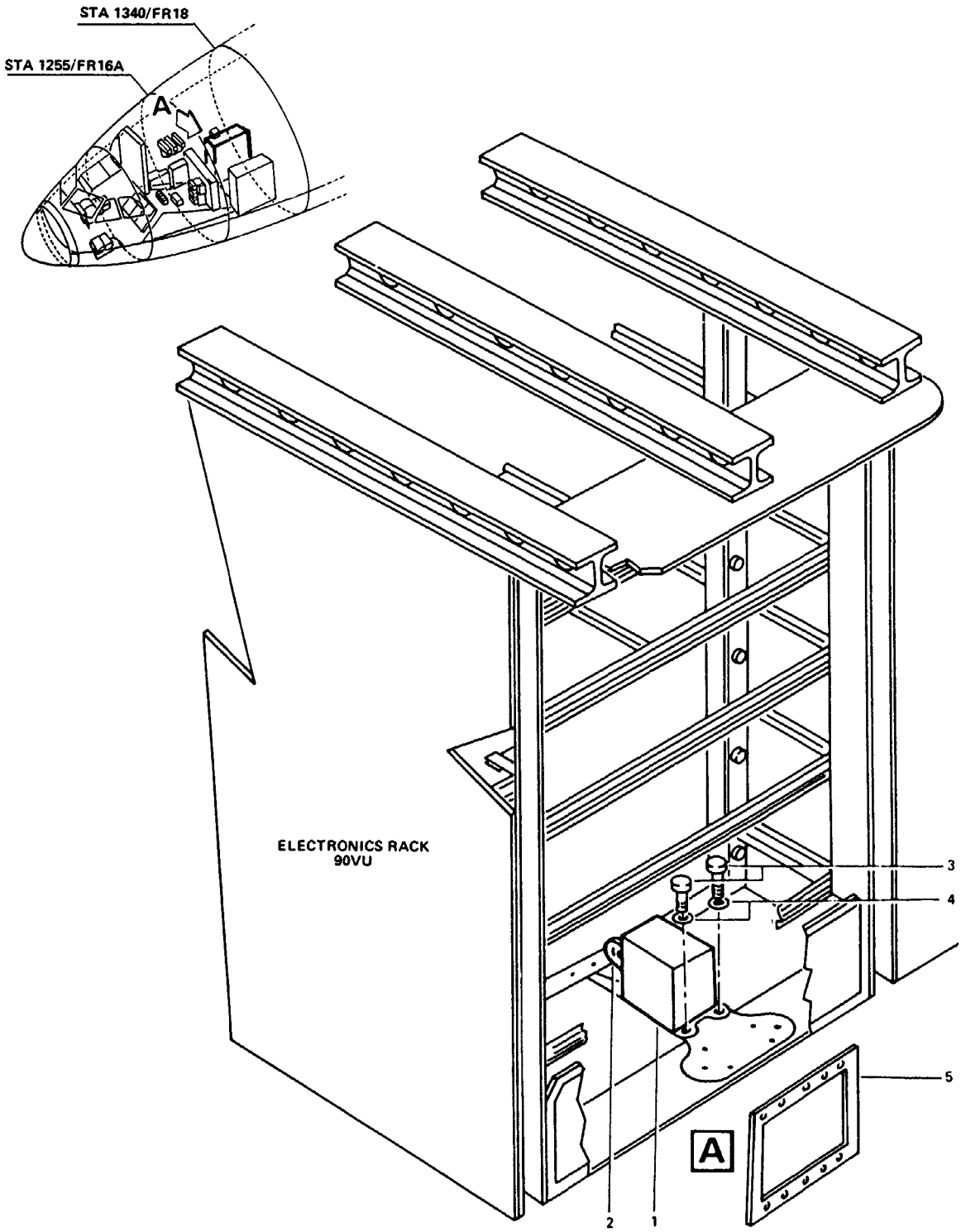
B. Removal
(1)On control box (1) disconnect electrical connector (2).
(2)Loosen and remove two screws (3), retain washers (4).
(3)Remove control box (1).

C. Preparation of Replacement Component
(1)Make certain that control box is not dented or scratched.
(2)Make certain that electrical connector is in good condition.

D. Installation
(1)Position control box (1) on its mounting.
(2)Install screws (3) fitted with washers (4).
(3)Connect electrical connector (2) to control box (1).
(4)Remove safety clip and tag and close circuit breaker 18HT.

E. Test
Ref. 35-12-00, P. Block 501.

F. Close-Up
(1)Install central access door (5) on electronics rack 90VU.
(2)Close access door 121BL.
(3)Remove access platform.



Oxygen Control Box
Figure 401

OXYGEN SUPPLY MANIFOLD - REMOVAL/INSTALLATION

1. Equipment and Materials

ITEM	DESIGNATION
A.	Access Platform 2 m (6 ft. 7 in.)
R B. Material No. 05-003B	Special Materials (Ref. 20-31-00)
C. Material No. 05-004	Special Materials (Ref. 20-31-00)
D.	Sealing Ring - PURITAN
Referenced Procedure - 24-41-00, P. Block 301	AC External Power Control

2. Procedure

(Ref. Fig. 401)

WARNING : PERSONNEL IN CHARGE OF CARRYING OUT THE ACTIONS BELOW MUST BE AWARE OF THE RISKS INVOLVED IN HANDLING OXYGEN WHICH ENHANCES COMBUSTION IN THE PRESENCE OF FUEL AND BECOMES EXPLOSIVE IN THE PRESENCE OF HYDROCARBONS (FUELS, LUBRICANTS).

A. Job Set-Up

WARNING : BEFORE ANY ACTION, PERSONNEL SHOULD CLEAN TOOLS AND ENSURE THAT THEIR HANDS ARE CLEAN TO AVOID CONTAMINATION.

BEFORE DISASSEMBLING, MAKE CERTAIN THAT SYSTEMS ARE NOT PRESSURIZED. WHEN DISASSEMBLED TEMPORARILY, ANY PIPE OR UNIT SHOULD HAVE THE ENDS PROTECTED BY A DRY AND CLEAN METAL OR PLASTIC PLUG, AND BE PLACED IN A SEALED VINYL BAG.

(1)Position access platform.
(2)Open access door 121BL.
(3)Open cylinder storage compartment access door.
(4)Shut off cylinder valves.
(5)Bleed the system.
(6)Open, safety and tag the following circuit breaker :

PANEL	SERVICE	IDENT.	LOCATION
22VU	CREW OXYGEN	18HT	210/D13

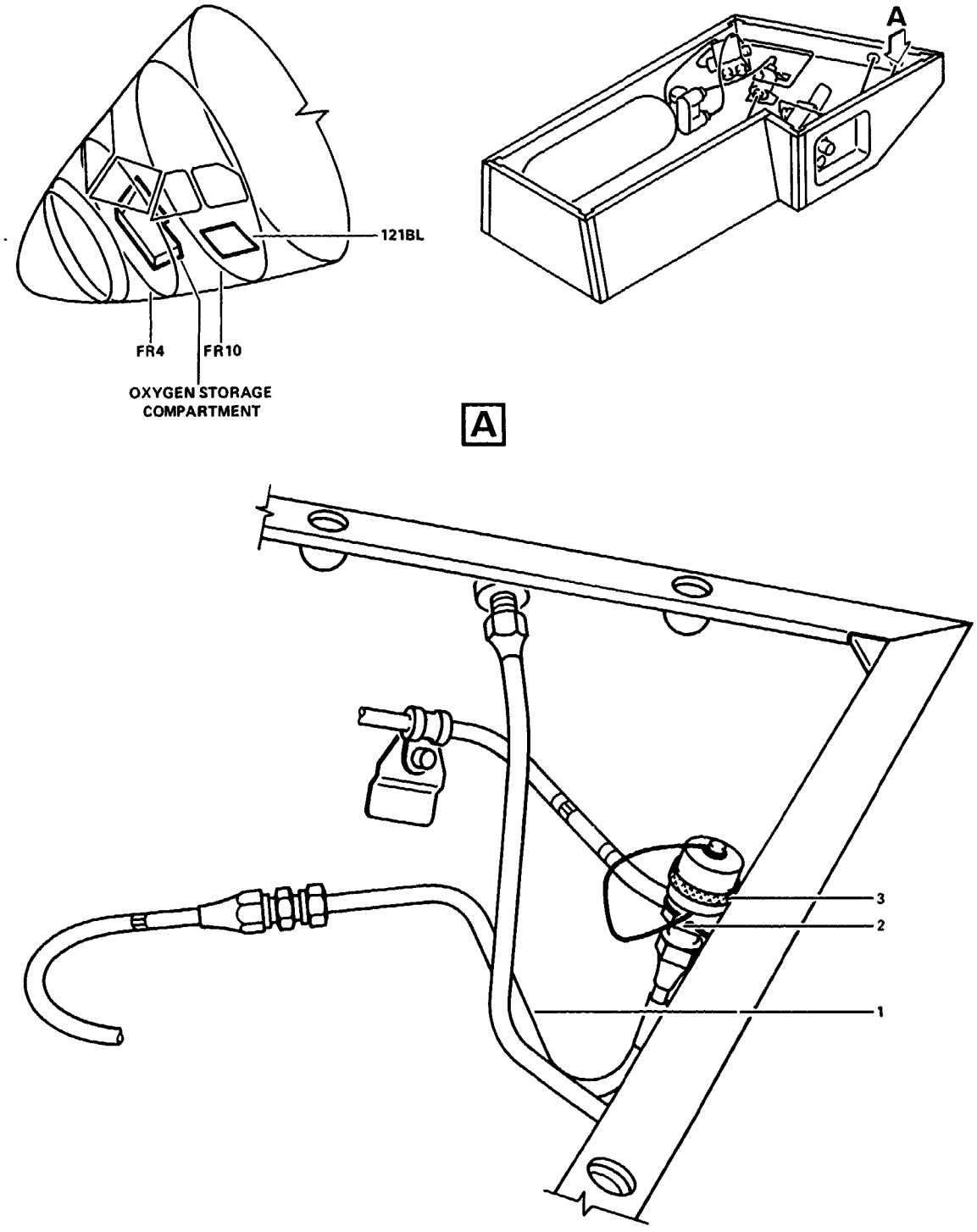
B. Removal

(1)Disconnect pipe (1) and discard sealing rings.
(2)Remove nut (2).
(3)Remove test connector (3).

C. Installation

R CAUTION : NO COMPOUND, OTHER THAN SPECIAL MATERIAL No.05-003B MUST BE USED ON NUT THREADS OR ON THE FLARED PORTION OF THE TUBE.
THIS COMPOUND SHOULD BE USED SPARINGLY ON ALL FIRST THREE MALE THREADS.

(1)Install test connector (3).
(2)Install and tighten nut (2).



Oxygen Supply Manifold
Figure 401

(3)Install new sealing rings and connect pipe (1).

D. Test
(1)Apply special Material No.05-004 to each union.
(2)Remove safety clips and tags and close circuit breaker 18HT.
(3)Open oxygen cylinder valves very slowly, 3 1/2 to 4 turns.
(4)Wait approximately 90 seconds for system pressure to stabilize.
(5)Fully open cylinder valves.
(6)Energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
Make certain that electronics racks ventilation is correct.
(7)On OXYGEN panel 435VU
- press LO PR SUPPLY pushbutton switch.
(8)Make certain that unions do not leak.
(9)Wipe off any excess Material No.05-004.

E. Close-Up
(1)Close cylinder storage compartment access door.
(2)On OXYGEN panel 435VU, release LO PR SUPPLY pushbutton switch.
(3)De-energize the aircraft electrical network (Ref. 24-41-00,
P. Block 301).
(4)Close access door 121BL.
(5)Remove access platform.

1. Removal/Installation of Oxygen Mask Stowage Box

A.Equipment and Material

ITEM	DESIGNATION
A.	Access Platform 2.6 m (8 ft. 6 in.)
B. Material No. 05-003B	Special Materials (Ref. 20-31-00)
C. Material No. 05-004	Special Materials (Ref. 20-31-00)
D.	Torque Wrench 0 to 3 m.daN (0 to 22.1 lbf.ft.)
E.	Circuit Breaker Safety Clips
Referenced Procedure	
- 24-41-00, P. Block 301	AC External Power Control
- 23-51-00, P. Block 501	AUDIO INTEGRATING - ADJUSTMENT/TEST

B.Procedure

R **ON A/C 001-005,

(Ref. Fig. 401)

R **ON A/C 006-200,

(Ref. Fig. 402)

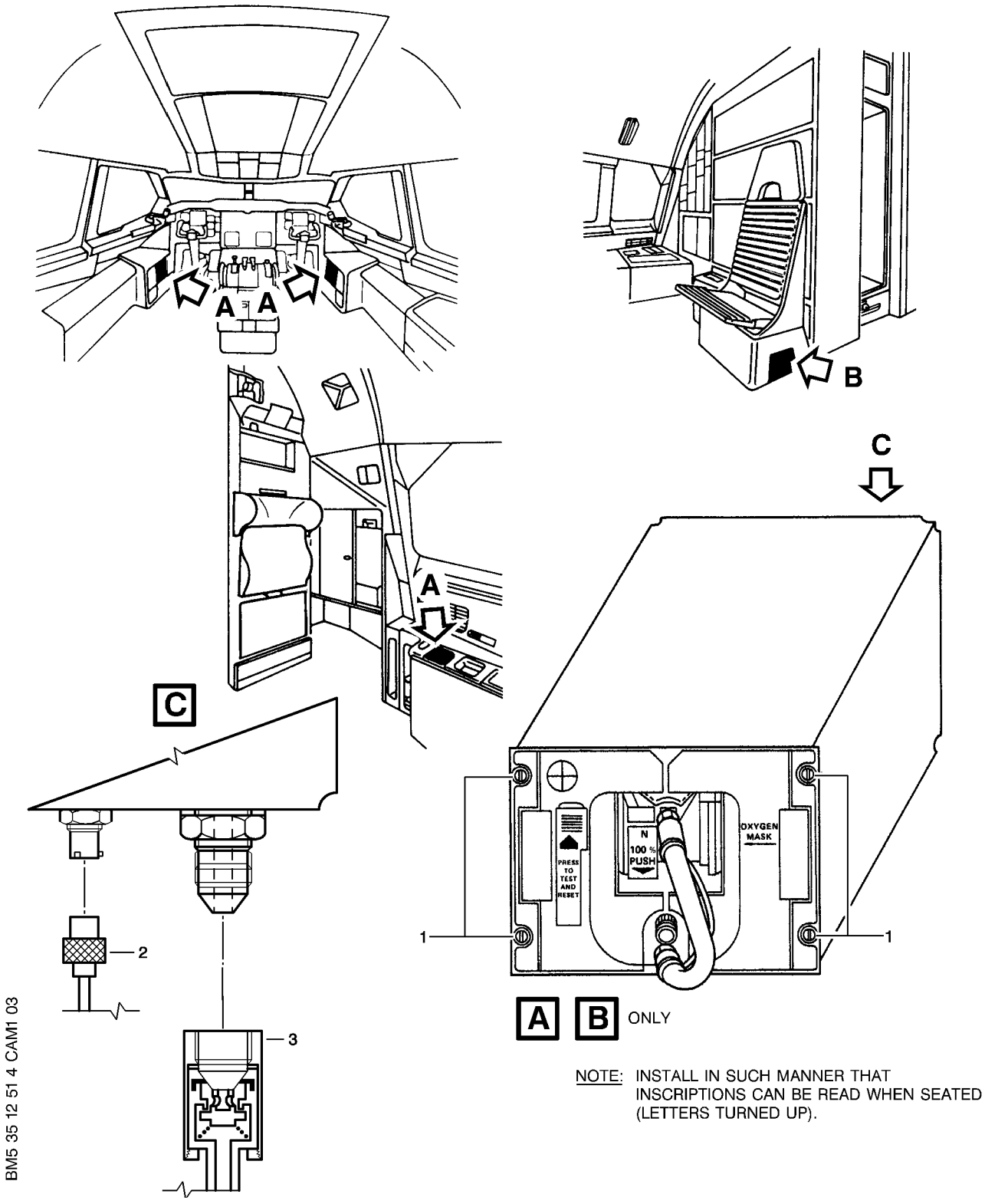
R **ON A/C 001-005,

R WARNING : PERSONNEL IN CHARGE OF CARRYING OUT THE ACTIONS BELOW MUST BE
R AWARE OF THE RISKS INVOLVED IN HANDLING OXYGEN WHICH ENHANCES
R COMBUSTION IN THE PRESENCE OF FUEL AND BECOMES EXPLOSIVE IN THE
R PRESENCE OF HYDROCARBONS (FUELS, LUBRICANTS).

R (1)Job Set-Up
R WARNING : BEFORE ANY ACTION, PERSONNEL SHOULD CLEAN TOOLS AND ENSURE THAT
R THEIR HANDS ARE CLEAN TO AVOID CONTAMINATION.
R (a)Position access platform at forward cargo compartment door.
R (b)Open forward cargo compartment door.
R (c)Open access door (132AZ).
R (d)Open cylinder storage compartment access door.
R (e)Close cylinder valve.
R (f)Bleed oxygen systems using a crew mask and operating the RESET TEST
R control slide until LP indicator reading is at its lowest.
R (g)Open, safety and tag the following circuit breaker :

R PANEL	SERVICE	IDENT.	LOCATION
R 22VU	OXYGEN/CREW	18HT	208/B28

R (2)Removal



Crew Quick Donning Oxygen Mask
Figure 401

R

R EFFECTIVITY: 001-005,

PIA

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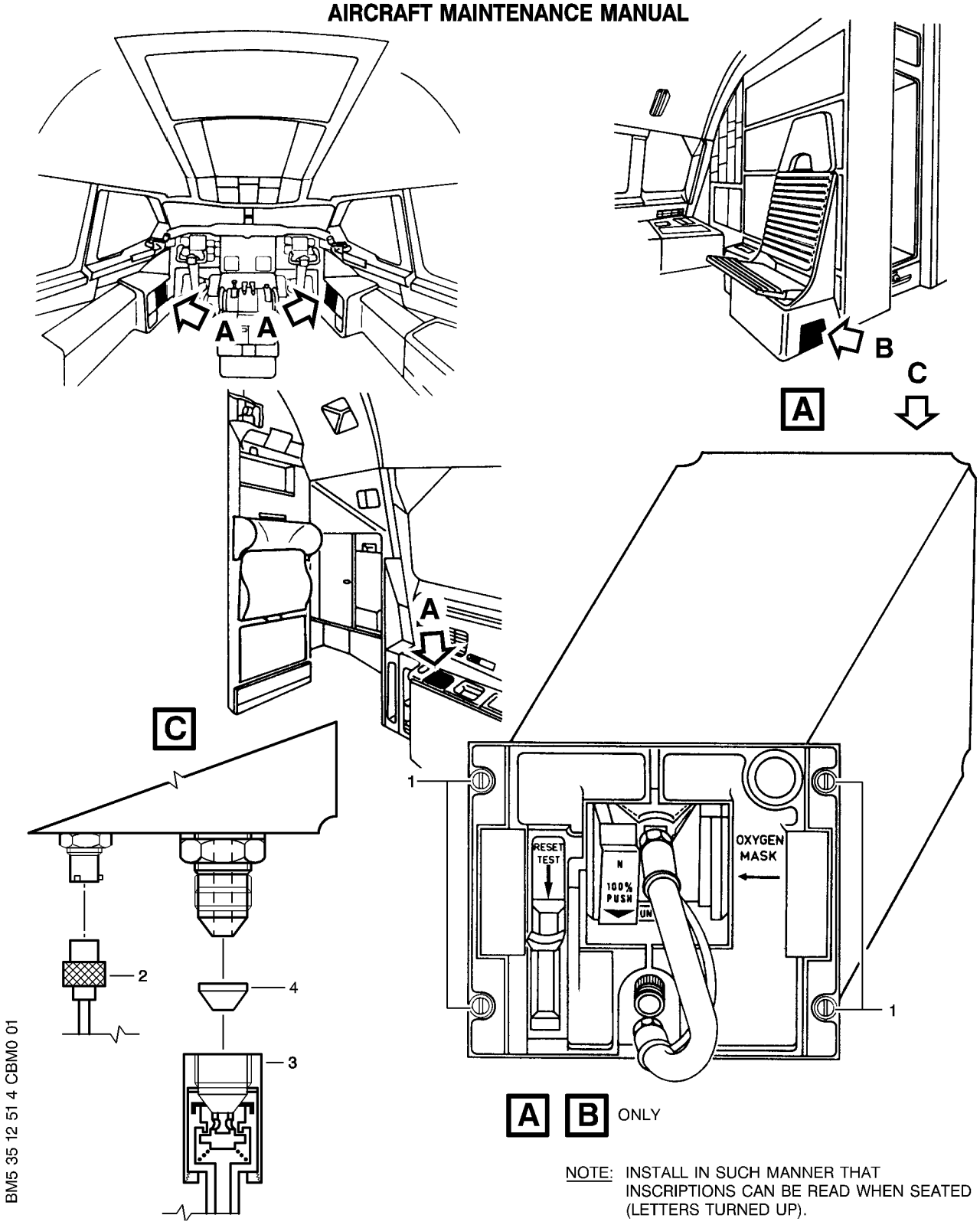


Crew Quick Donning Oxygen Mask
Figure 402

R WARNING : BEFORE DISASSEMBLING, MAKE CERTAIN THAT SYSTEMS ARE NOT
R PRESSURIZED. WHEN DISASSEMBLED TEMPORARILY, ANY PIPE OR UNIT
R SHOULD HAVE THE ENDS PROTECTED BY A DRY AND CLEAN METAL PLUG,
R AND BE PLACED IN A SEALED VINYL BAG.
R (a)Remove screws (1).
R (b)Remove oxygen mask stowage box from its housing.
R (c)Disconnect microphone lead connector (2).
R (d)Unscrew coupling (3) from mask stowage box union.

R (3)Preparation of Replacement Component
R Visually ckeck mask stowage box, union threads and microphone lead
R connection for correct condition.

R (4)Installation
R CAUTION : NO COMPOUND, OTHER THAN SPECIAL MATERIAL No. 05-003B MUST BE
R USED ON NUT THREADS OR ON THE FLARED PORTION OF THE TUBE.
R (a)Remove vinyl bag and protective plug at end of line.
R (b)Apply a thin layer of Special Material (Material No. 05-003B) to the
R first three male threads of coupling (3).
R (c)Screw coupling (3) on mask stowage box union.
R (d)Connect microphone lead connector (2).
R NOTE : Perform test before installing mask stowage box in its housing
R (Ref. Para. B.(5)).
R (e)Install mask stowage box assy in its housing.
R (f)Install screws (1).

R (5)Test
R (a)Apply special Material No. 05-004 to pipe connections.
R (b)Remove safety clip and tag and close circuit breaker 18HT.
R (c)Open cylinder valve very slowly, 3 to 4 turns.
R (d)Wait approximately 90 seconds for system pressure to stabilize.
R (e)Fully open valve.
R (f)Energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
R (g)On OXYGEN panel 435VU
R - on CREW/LO PR SUPPLY pushbutton switch, select OFF legend off.
R - make certain that LP gage pointer stabilizes in green band.
R (h)Check mask stowage box connection for absence of leakage.
R (j)Wipe off special Material No. 05-004.
R (k)Perform a microphone test (Ref. 23-51-00, P. Block 501).

R (6)Close-Up
R (a)On OXYGEN panel 435VU
R - on CREW/LO PR SUPPLY pushbutton switch, select OFF legend on.
R (b)Bleed oxygen LP system.
R (c)Perform operational test of crew oxygen masks (Ref. 35-12-51,
R P. Block 501).
R (d)De-energize the aircraft electrical network (Ref. 24-41-00,
R P. Block 301).
R (e)Make certain that working area is clean and clear of tools and
R miscellaneous items of equipment.
R (f)Close access door to cylinder stowage compartment.

R (g)Close access door (132AZ).
R (h)Close forward cargo compartment door.
R (j)Remove access platform.

R **ON A/C 006-200,

WARNING : PERSONNEL IN CHARGE OF CARRYING OUT THE ACTIONS BELOW MUST BE AWARE OF THE RISKS INVOLVED IN HANDLING OXYGEN WHICH ENHANCES COMBUSTION IN THE PRESENCE OF FUEL AND BECOMES EXPLOSIVE IN THE PRESENCE OF HYDROCARBONS (FUELS, LUBRICANTS).

(1)Job Set-Up
WARNING : BEFORE ANY ACTION, PERSONNEL SHOULD CLEAN TOOLS AND ENSURE THAT THEIR HANDS ARE CLEAN TO AVOID CONTAMINATION
(a)Position access platform at forward cargo compartment door.
(b)Open forward cargo compartment door.
(c)Open access door (132AZ).
(d)Open cylinder storage compartment access door.
(e)Close cylinder valve.
(f)Bleed oxygen systems using a crew mask and operating the RESET TEST control slide until LP indicator reading is at its lowest.
(g)Open, safety and tag the following circuit breaker :

PANEL	SERVICE	IDENT.	LOCATION
22VU	OXYGEN/CREW	18HT	208/B28

(2)Removal
WARNING : BEFORE DISASSEMBLING, MAKE CERTAIN THAT SYSTEMS ARE NOT PRESSURIZED. WHEN DISASSEMBLED TEMPORARILY, ANY PIPE OR UNIT SHOULD HAVE THE ENDS PROTECTED BY A DRY AND CLEAN METAL PLUG, AND BE PLACED IN A SEALED VINYL BAG.
(a)Remove screws (1).
(b)Remove oxygen mask stowage box from its housing.
(c)Disconnect microphone lead connector (2).
(d)Unscrew coupling (3) from mask stowage box union. Discard conical seal (4).

(3)Preparation of Replacement Component
Visually ckeck mask stowage box, union threads and microphone lead connection for correct condition.

(4)Installation
CAUTION : NO COMPOUND, OTHER THAN SPECIAL MATERIAL No. 05-003B MUST BE USED ON NUT THREADS OR ON THE FLARED PORTION OF THE TUBE.
(a)Remove vinyl bag and protective plug at end of line.
(b)Apply a thin layer of Special Material (Material No. 05-003B) to the first three male threads of coupling (3).
(c)Install a new conical seal (4) on coupling (3).
(d)Screw coupling (3) on mask stowage box union.
(e)Connect microphone lead connector (2).

NOTE : Perform test before installing mask stowage box in its housing (Ref. Para. B.(5)).

(f)Install mask stowage box assy in its housing.
(g)Install screws (1).

(5)Test
(a)Apply special Material No. 05-004 to pipe connections.
(b)Remove safety clip and tag and close circuit breaker 18HT.
(c)Open cylinder valve very slowly, 3 to 4 turns.
(d)Wait approximately 90 seconds for system pressure to stabilize.
(e)Fully open valve.
(f)Energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(g)On OXYGEN panel 435VU
- on CREW/LO PR SUPPLY pushbutton switch, select OFF legend off.
- make certain that LP gage pointer stabilizes in green band.
(h)Check mask stowage box connection for absence of leakage.
(j)Wipe off special Material No. 05-004.
(k)Perform a microphone test (Ref. 23-51-00, P. Block 501).

(6)Close-Up
(a)On OXYGEN panel 435VU
- on CREW/LO PR SUPPLY pushbutton switch, select OFF legend on.
(b)Bleed oxygen LP system.
(c)Perform operational test of crew oxygen masks (Ref. 35-12-51, P. Block 501).
(d)De-energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(e)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.
(f)Close access door to cylinder stowage compartment.
(g)Close access door (132AZ).
(h)Close forward cargo compartment door.
(j)Remove access platform.

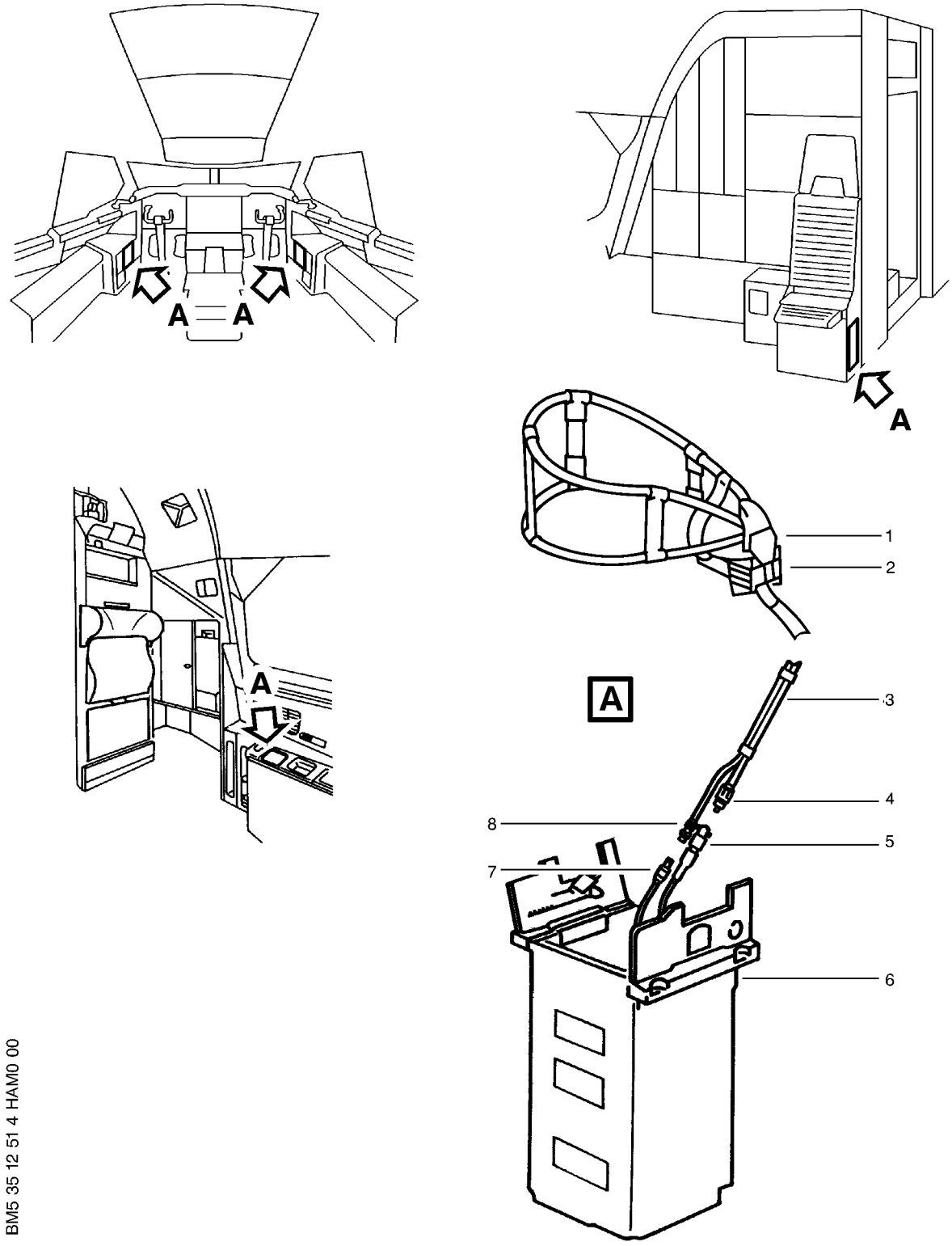
R **ON A/C ALL

2. Removal/Installation of Full Face/Quick Donning Oxygen Mask

A.Equipment and Material

ITEM	DESIGNATION
A.	Access Platform 2.6 m (8 ft. 6 in.)
B. Material No. 05-003B	Special Materials (Ref. 20-31-00)
C. Material No. 05-004	Special Materials (Ref. 20-31-00)
D.	Circuit Breaker Safety Clips
Referenced Procedure	
- 24-41-00, P. Block 301	AC External Power Control
- 23-51-00, P. Block 501	AUDIO INTEGRATING - ADJUSTMENT/TEST

B.Procedure
(Ref. Fig. 403)



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Full Face/Quick Donning Oxygen Mask
Figure 403

WARNING : PERSONNEL IN CHARGE OF CARRYING OUT THE ACTIONS BELOW MUST BE AWARE OF THE RISKS INVOLVED IN HANDLING OXYGEN WHICH ENHANCES COMBUSTION IN THE PRESENCE OF FUEL AND BECOMES EXPLOSIVE IN THE PRESENCE OF HYDROCARBONS (FUELS, LUBRICANTS).

(1)Job Set-Up

WARNING : BEFORE ANY ACTION, PERSONNEL SHOULD CLEAN TOOLS AND ENSURE THAT THEIR HANDS ARE CLEAN TO AVOID CONTAMINATION.

(a)Position access platform at forward cargo compartment door.
(b)Open forward cargo compartment door.
(c)Open access door (132AZ).
(d)Open cylinder stowage compartment access door.
(e)Close cylinder valve.
(f)Bleed oxygen systems using a crew mask and operating the RESET TEST control slide until LP indicator reading is at its lowest.
(g)Open, safety and tag the following circuit breaker :

PANEL	SERVICE	IDENT.	LOCATION
22VU	OXYGEN/CREW	18HT	208/B28

(2)Removal

WARNING : BEFORE DISASSEMBLING, MAKE CERTAIN THAT SYSTEMS ARE NOT PRESSURIZED. WHEN DISASSEMBLED TEMPORARILY, ANY PIPE OR UNIT SHOULD HAVE THE ENDS PROTECTED BY A DRY AND CLEAN METAL PLUG, AND BE PLACED IN A SEALED VINYL BAG.

(a)Open doors of stowage box (6).
(b)Remove mask by grasping red inflation lever (1) located on regulator (2).
(c)Disconnect electrical connectors (7) and (8).
(d)Put a blanking cap on electrical connector (7).
(e)Disconnect QAD connectors (4) and (5).
(f)Put a blanking plug on connector (5).

(3)Preparation of Replacement Component

(a)Make sure that the parts retained from the removed component are clean and in correct condition.

(4)Installation

CAUTION : NO COMPOUND, OTHER THAN SPECIAL MATERIAL (Material No. 05-003B) MUST BE USED ON NUT THREADS OR ON THE FLARED PORTION OF THE TUBE.

(a)Open stowage box doors.
(b)Remove blanking cap from electrical connector (7).
(c)Connect electrical connectors (7) and (8).
(d)Remove blanking plug from connector (5).
(e)Apply a thin layer of Special Material (Material No. 05-003B) to the male part of QAD connectors (4) and (5).
(f)Connect QAD connectors (4) and (5).

NOTE : Perform test before installing mask stowage box in its housing (Ref. Para. B.(5)).

(g)Put hose (3) into coils (do not turn regulator) and put in position at the side of the stowage box (crew leg side).
(h)Hold regulator (2).
(j)Put regulator above the box while you hold hose (3) and harness with your free hand.
(k)Put harness in the face piece cavity.
(l)Put assembly into stowage box (6).
(m)Put hose (3) in the middle for correct alignment when doors are closed.
(n)Close doors.

(5)Test
(a)Apply Special Material (Material No. 05-004) to pipe connections.
(b)Remove safety clip and tag and close circuit breaker 18HT.
(c)Open cylinder valve very slowly, 3 to 4 turns.
(d)Wait approximately 90 seconds for system pressure to stabilize.
(e)Fully open valve.
(f)Energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(g)On OXYGEN panel 435VU
- on CREW/LO PR SUPPLY pushbutton switch, select OFF (legend goes off).
- make certain that LP gage pointer stabilizes in green band.
(h)Check mask stowage box connection for absence of leakage.
(j)Wipe off Special Material (Material No. 05-004).
(k)Perform microphone test (Ref. 23-51-00, P. Block 501).

(6)Close-Up
(a)On OXYGEN panel 435VU
- on CREW/LO PR SUPPLY pushbutton switch, select OFF (legend comes on).
(b)Bleed oxygen LP system.
(c)Perform operational test of crew oxygen masks (Ref. 35-12-51, P. Block 501).
(d)De-energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(e)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.
(f)Close access door to cylinder stowage compartment.
(g)Close access door (132AZ).
(h)Close forward cargo compartment door.
(j)Remove access platform.

R CREW QUICK DONNING OXYGEN MASK ASSEMBLY - ADJUSTMENT/TEST

R 1. Operational Test of Full Face/Quick Donning Oxygen Mask

R A. Reason for the Job
R To check correct operation of the crew oxygen mask assembly.
R NOTE : The crew oxygen mask assembly is designed so as to perform an in
R situ test sequence.

R B. Equipment and Materials

ITEM	DESIGNATION
A.	Access Platform 4.50 m (14 ft. 9 in.)
Referenced Procedure - 24-41-00, P. Block 301	AC External Power Control

R C. Procedure

WARNING : PERSONNEL IN CHARGE OF CARRYING OUT THE ACTIONS BELOW MUST BE AWARE OF THE RISKS INVOLVED IN HANDLING OXYGEN WHICH ENHANCES COMBUSTION IN THE PRESENCE OF FUEL AND BECOMES EXPLOSIVE IN THE PRESENCE OF HYDROCARBONS (FUEL, LUBRICANTS).

R (1)Job Set Up
R (a)Energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
R (b)Make certain that electronics rack ventilation is correct.
R (c)Install access platform at LH forward passenger/crew door.
R (d)Make certain that the following circuit breakers are closed :

PANEL	SERVICE	IDENT.	LOCATION
22VU	OXYGEN/CREW	18HT	208/B28

R (e)On panel 435VU, press LO PR SUPPLY pushbutton switch (ON position).
R (2)Test
R (a)Crew oxygen mask assembly test

ACTION	RESULT
R 1. Press RESET TEST control slide and hold throughout test	- Flowmeter blinker operates very briefly
R 2. Press harness inflation control lever	- Flowmeter blinker operates and disappears relatively slowly
R 3. Press pressure regulator test button for 1 second approximately	- Blinker appears and disappears - Oxygen flow must be audible in the headset NOTE : Oxygen flow is audible in the headset if on the con-

ACTION	RESULT
	cerned station audio selector panel the **RADIO-INT PTT** switch is placed simultaneously in **INT** position.
R 4. Release **RESET TEST** control slide	- Control slide returns to original position
R 5. Operate **N/100 %** control rocker on regulator, then return it to **100 %** position	- Control rocker operates and locks normally

R (3)Close-Up
R (a)On panel **435VU**, press to release **LO PR SUPPLY** pushbutton switch (OFF position).
R (b)De-energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
R (c)Remove access platform.

R 2. Functional Test of Demand Regulator Assembly

R A. Equipment and Materials

R ITEM	DESIGNATION
R Referenced Procedure R - 35-12-51, P. Block 401	Crew Quick Donning Oxygen Mask

R B. Procedure

R (1)Job Set Up
R (a)Remove full-face quick-donning oxygen mask (Ref. 35-12-51, P. Block 401).
R (2)Test
R (a)Do the test of demand regulator assembly in workshop.
R (3)Close-Up
R (a)Install full-face quick-donning oxygen mask (Ref. 35-12-51, P. Block 401).

CREW OXYGEN MASK ASSEMBLY - INSPECTION/CHECK

1. Reason for the Job

A. Functional check of the crew oxygen mask assembly.

2. Equipment and Materials

ITEM	DESIGNATION
Not required	
Referenced Procedure - 24-41-00, P. Block 301	AC External Power Control

3. Procedure

WARNING : PERSONNEL IN CHARGE OF CARRYING OUT THE ACTIONS BELOW MUST BE AWARE OF THE RISKS INVOLVED IN HANDLING OXYGEN, WHICH ENHANCES COMBUSTION IN THE PRESENCE OF FUEL AND BECOMES EXPLOSIVE IN THE PRESENCE OF HYDROCARBONS : (FUELS, LUBRICANTS).

A. Job Set-Up

BEFORE ANY ACTION, PERSONNEL SHOULD CLEAN TOOLS AND ENSURE THAT THEIR HANDS ARE CLEAN TO AVOID CONTAMINATION.

(1)Open crew door (819).
(2)Energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(3)Make certain that electronics racks ventilation is correct.
(3)Make certain that the following circuit breakers are closed :

PANEL	SERVICE	IDENT.	LOCATION
22VU	CREW OXYGEN	18HT	208/B28

(4)On CREW OXYGEN panel, make certain that LO PR SUPPLY pushbutton switch is in ON position.

B. Inspection/Check

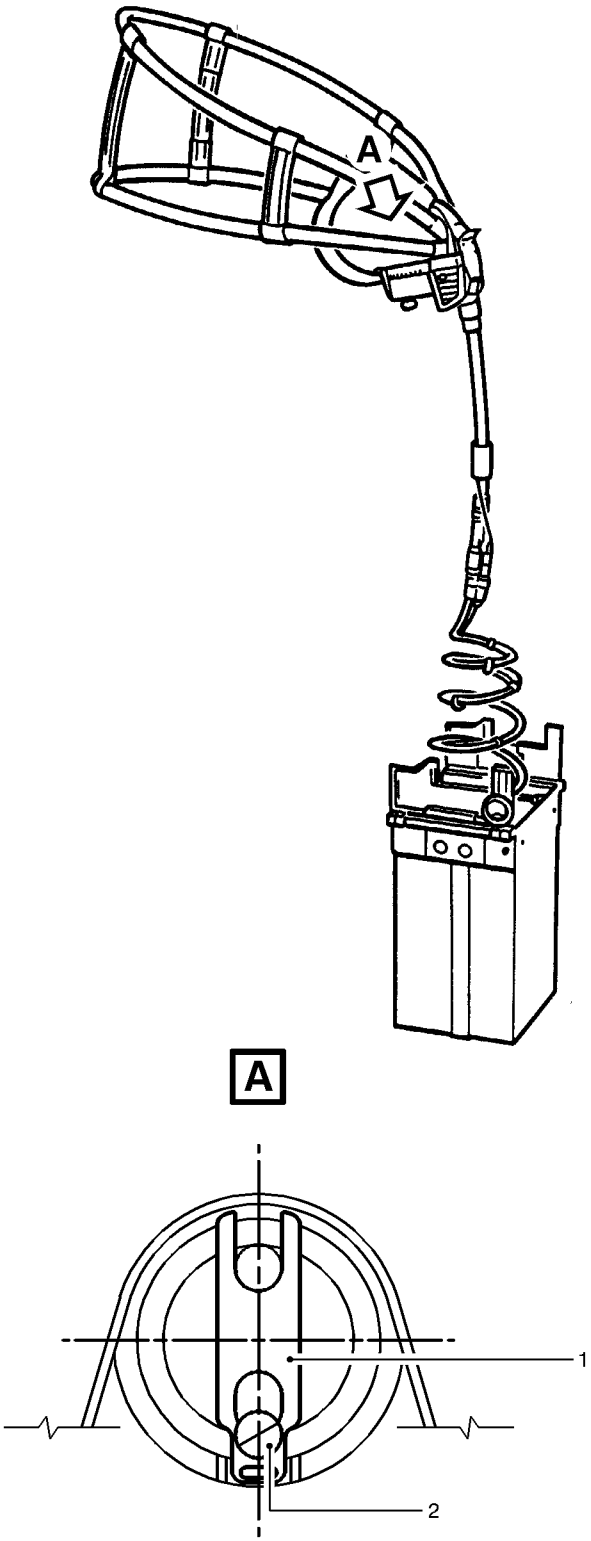
(1)Visually check oxygen mask assembly.
(2)Remove mask by grasping red inflation levers.
(3)Check inflation of harness.
(4)Check harness for leakage and cracks.
NOTE : For smoke goggles, make sure that protective film (SAN-30) is not installed.
R (5)Check that displacement of both doors on mask assembly box is correct.
R (6)Visually inspect regulator and oxygen supply hose.
R (7)Check microphone cable.
R (8)Install mask in mask assembly box.
R (9)Make certain that doors are correctly closed.
R (10)After check of the last oxygen mask assembly
(a)Place LP PR SUPPLY pushbutton switch in OFF position.
(b)Operate several times TEST RESET slide control, located on face of mask assembly box, until LP gage reading on CREW OXYGEN panel is

at its lowest.

R C. Check of the Correct Torque of the Retaining Screw
(Ref. Fig. 601)
R (1)Remove mask by grasping red inflation levers.
R (2)Loosen retaining screw (2) from mask lock (1).
R (3)TORQUE retaining screw (2) of mask lock (1) to 0.06 m.daN
R (5.30 lbf.in) maximum.

R D. Check of the Correct Position of the Mask Lock
(Ref. Fig. 601)
R (1)Make sure that mask lock (1) is correctly locked.
R (2)Install mask in mask assembly box.
R (3)Make certain that doors are correctly closed.
R (4)After test of the last oxygen mask assembly
R (a)Place LP PR SUPPLY pushbutton switch in OFF position.
R (b)Operate several times TEST RESET slide control, located on face of
R mask assembly box, until LP gage reading on CREW OXYGEN panel is
R at its lowest.

R E. Close-Up
(1)Remove access platform.
(2)De-energize the aircraft electrical network (Ref. 24-41-00,
P. Block 301).



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Mask Lock and Retaining Screw
Figure 601

R

R CREW OXYGEN MASK ASSEMBLY - CLEANING/PAINTING

R 1. Equipment and Materials

ITEM	DESIGNATION
A.	Soft Brush
B.	Lint-Free Cloth
C. Material No. 11-007	Cleaning Agents (Ref. 20-31-00)
D. Material No. 11-016	Cleaning Agents (Ref. 20-31-00)
E. Material No. 14-002	Disinfectants (Ref. 20-31-00)

2. Procedure

CAUTION : WORK IN A DUST FREE AREA, AWAY FROM OIL AND HYDROCARBON COMPOUNDS. BEFORE ANY ACTION PERSONNEL SHOULD CLEAN TOOLS AND ENSURE THAT THEIR HANDS ARE CLEAN TO AVOID CONTAMINATION.

A. Job Set-Up
(1)Prepare the following detergent solution : Mix 1.5 cm^3 (0.09 cu.in.) of cleaning agents (Material No. 11-007) with 4 liters (1 US.gal) of clean water.
(2)On panel 435VU, make certain that OFF legend of LO PR SUPPLY pushbutton switch is off.
(3)Remove mask from its stowage box and disconnect microphone cable and oxygen supply hose.

B. Cleaning
(1)Mask
(a)Clean mask with detergent solution using a soft brush or terry cloth.
(b)Wipe mask with a lint-free cloth and allow to dry in the air.
(c)Spray internal surfaces of mask with aseptic spray (Material No. 14-002).
(2)Mask regulator
(a)Clean parts other than those made of elastomer with cleaning agents (Material No. 11-016).
(b)Clean elastomer parts with detergent solution.
(c)Dry carefully with a lint-free cloth.
(d)Dry mask regulator with dry, filtered, low pressure air.
(3)Mask stowage box
(a)Clean box with a dry, lint-free cloth.

C. Close-Up
(1)Connect microphone cable and oxygen supply hose, and install mask in stowage box.

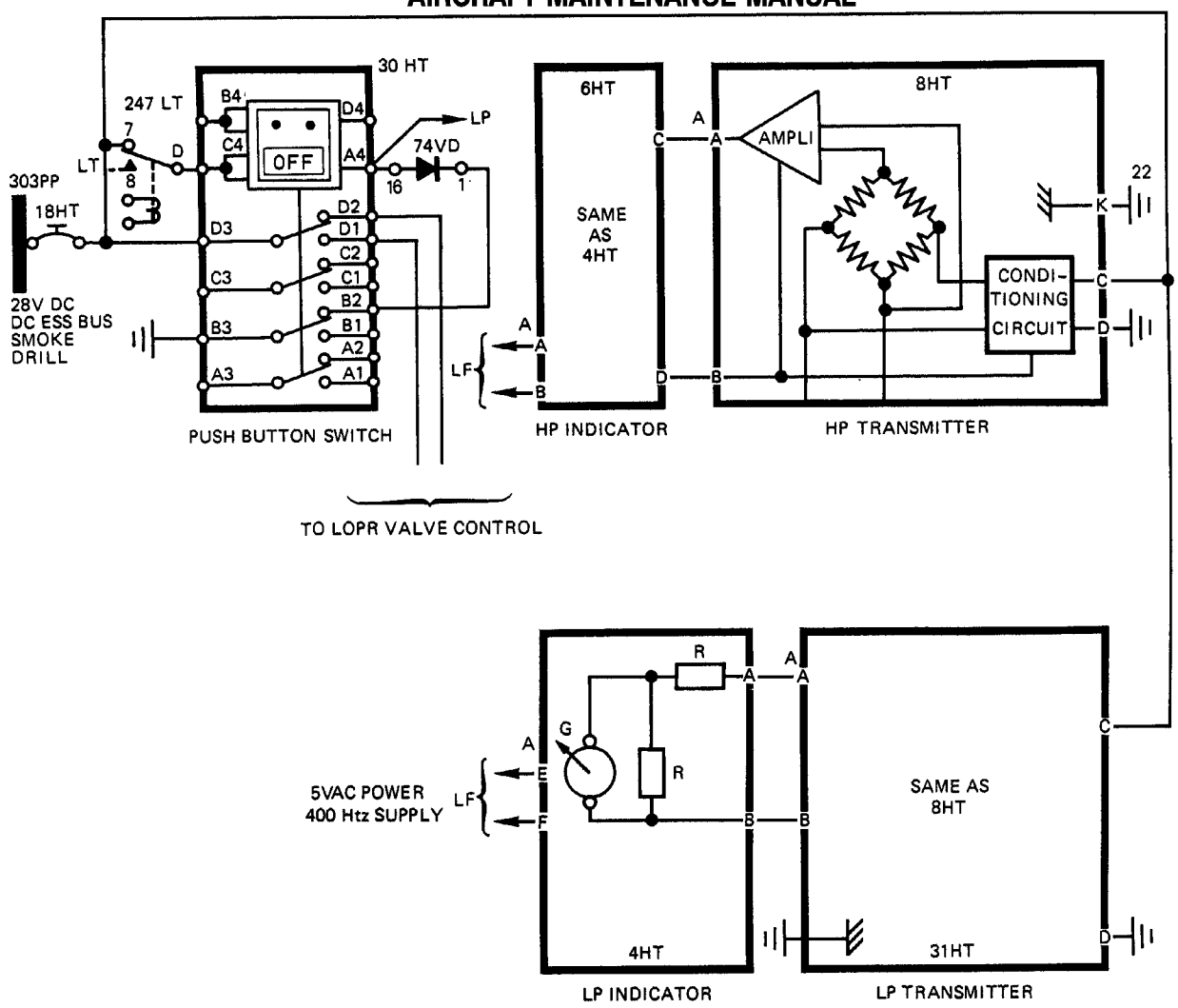
1. Description and Operation

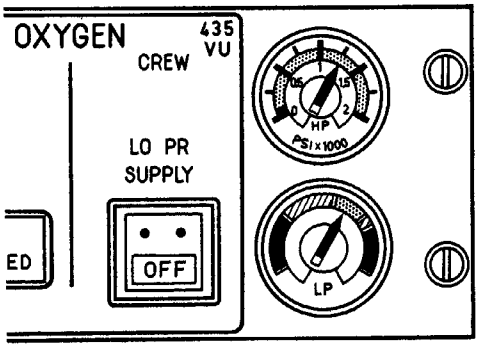
A. Storage compartment
It is possible to check the cylinder pressure, with a flash light, through the windows provided on the storage compartment cover, by direct reading of the pressure gauge provided for that purpose upstream of the cylinder valve.
This reading is mainly intended for the maintenance personnel who must check the cylinder pressure to decide a possible replacement.

B. Control and Monitoring Panel
(1)Description
This panel is located on the overhead panel
R (Ref. Fig. 001)
It includes :
(a)An HP indicator remotely controlled by the transmitter incorporated in the high pressure stage of the regulator. It indicates, when the cylinder manual isolation valve is open, the pressure of the cylinder and the high pressure stage of the regulator.
It is graduated in psi and divited into two colored ranges :
Red range : 0 - 5.86 bars (0 - 85 psig)
Green range : 5.86 - 140 bars (85 - 2025 psig)
(b)A LO PR SUPPLY (OFF) pushbutton switch which enables the oxygen supply valve located in the storage compartment to be opened and closed.
(c)An LP indicator remotely controlled by the LP transmitter mounted on the oxygen supply manifold in the storage compartment, downstream of the oxygen supply valve.
It indicates the pressure in the distribution system.
It includes reading ranges which are identified clockwises by the following colors :
Red : Pressure lower than 2.62 bars (38 psig)
Amber : Pressure between 2.62 - 4.83 bars (38 - 70 psig)
Green : Pressure between 4.83 - 6.48 bars (70 - 94 psig)
Amber : Pressure between 6.48 - 6.97 bars (94 - 101 psig)
Red : Pressure higher than 6.97 bars (101 psig)
Control characteristics
- A/C network de-energized
  . pushbutton switch OFF legend off
- A/C network energized
  . pushbutton switch OFF legend off :
    oxygen supply valve opens

2. Indicator Reading Analysis

A. Reading the HP indicator has a meaning only if the cylinder manual isolation valve has been previously opened.
Pointer in green range :
Expresses the available oxygen quantity in psig for a temperature of the storage compartment of 21 °C





INDICATORS - INPUT SIGNALS

HP : 0 TO 5.4 V
LP : 0 TO 6.4 V

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LP and HP Indication Systems
Figure 001

R

Pointer in red range :
Expresses one of the following configurations :
- cylinder isolation valve closed
- or -
- high pressure measurement channel failure
- or -
- No oxygen in cylinder :
. either further to oxygen consumption during the previous flight without action of the maintenance personnel after flight
. or further to a leakage in the generation system upstream of the supply valve if the valve is closed or in the distribution system downstream of the valve if this valve is open

B. Reading the LP indicator has a meaning only if the oxygen supply valve is open.
Pointer in green range
Expresses a normal regulation condition
Pointer in amber range
Expresses an accidental regulation condition corresponding to :
- without flow pointer in pressure increase or pressure drop direction ; a misadjustment of the regulation level of the regulator
Mask performance affected without catastrophic effects,
- with flow pointer in pressure drop direction ;
particular inhalation conditions such as inhalation with strong pure oxygen ventilation, simultaneously by several crew members.
Pointer in red range
Expresses an accidental condition corresponding to a system fault :
- pointer in pressure drop direction :
  . If the HP indicator shows no pressure drop, there is a fault in the regulation system.
  Mask performance may become castastrophic for the user.
  . if the HP indicator shows a pressure drop, there is a leakage in the generation or distribution system
- pointer in pressure increase direction :
  . if the HP indicator shows no pressure drop, these is a misadjustment of the regulation level of the regulator, without effects for the user, the mask performance of which increases.
  . if the HP indicator shows a pressure drop down to 0, the overpressure safety system of the regulator low pressure stage has tripped.

1. Reason for the Job

A. Oxygen Indicating System Check

2. Equipment and Materials

ITEM	DESIGNATION
A.	Access Platform 2 m (6 ft. 7 in.)
Referenced Procedure - 24-41-00, P. Block 301	AC External Power Control

3. Procedure

A. Job Set-Up
(1)Position access platform.
(2)Open access 121BL.
(3)Connect electrical ground power unit and energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(4)Make certain that the following circuit breaker is closed :

PANEL	SERVICE	IDENT.	LOCATION
22VU	CREW OXYGEN	18HT	208/B28

B. Inspection/Check
(1)In oxygen storage compartment, note oxygen cylinder pressure.
(2)On panel 435VU
- on HP indicator, make certain that pressure corresponds to cylinder gage reading ± 100 psi.
(3)On panel 435VU
- press LP PR SUPPLY pushbutton switch (ON position)
- LP gage pointer must remain in green band
(4)On panel 435VU
- press to release LO PR SUPPLY pushbutton switch (OFF position)
- bleed LP system
- LP gage pointer must return to zero.

R **ON A/C 001-104,

C. Service Panel
Not applicable

R **ON A/C 105-200,

C. Service Panel
In service panel, make certain that pressure corresponds to cylinder

gage and HP indicator of panel 435VU reading ± 100 PSI.

R **ON A/C ALL

D. Close-Up
(1)De-energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(2)Close access door 121BL.
(3)Remove access platform.

OXYGEN HIGH PRESSURE INDICATOR - REMOVAL/INSTALLATION

1. Equipment and Materials

ITEM	DESIGNATION
A.	Circuit Breaker Safety Clips
Referenced Procedure - 24-41-00, P. Block 301	AC External Power Control

2. Procedure

A. Job Set-Up
(1)Open, safety and tag the following circuit breaker :

PANEL	SERVICE	IDENT.	LOCATION
22VU	OXYGEN/CREW	18HT	208/B28

(2)On panel 414VU
- place PED & OVHD PANEL rheostat in OFF position.

(3)Loosen the fasteners on panel 435VU and remove it from overhead panel.

B. Removal
(1)On back of HP indicator, disconnect electrical connector.
(2)On face of panel 435VU, loosen oval head screw tightening HP indicator clamp.
NOTE : Do not loosen the countersunk head screw securing clamp.
(3)Remove indicator from its housing.

C. Preparation of Replacement Component
(1)Make certain that replacement pressure indicator is not dented or scratched.
(2)Make certain that electrical connector is in correct condition.

D. Installation
(1)Insert HP indicator in housing, and tighten clamp by means of oval head screw.
(2)Connect electrical connector.

E. Close-Up
(1)Position panel 435VU and tighten fasteners.
(2)Close circuit breaker 18HT.
(3)Energize the aircraft electrical network (Ref. 24-41-00, P. Block 301). Make certain that electronics racks ventilation is correct.

F. Test
(1)In avionics compartment, note oxygen cylinder pressure.
(2)On HP indicator, make certain that pressure corresponds to cylinder pressure gage reading ± 100 psi.
(3)On panel 414VU

- turn PED & OVHD PANEL rheostat to max. BRT position.

(4) De-energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).

OXYGEN LOW PRESSURE INDICATOR - REMOVAL/INSTALLATION

1. Equipment and Materials

ITEM	DESIGNATION
A.	Circuit Breaker Safety Clips
Referenced Procedure - 24-41-00, P. Block 301	AC External Power Control

2. Procedure

A. Job Set-Up
(1)Open safety and tag the following circuit breaker:

PANEL	SERVICE	IDENT.	LOCATION
22VU	OXYGEN/CREW	18HT	208/B28

(2)On panel 414VU
- place PED & OVHD PANEL rheostat in OFF position.

(3)Loosen the dzus fasteners securing panel 435VU and remove it from overhead panel.

B. Removal
(1)Disconnect electrical connector from back of LP indicator.
(2)On face of panel 435VU, loosen oval head screw on clamp.
NOTE : Do not loosen countersunk head screw securing clamp.
(3)Remove LP indicator from housing.

C. Preparation of Replacement Component
(1)Make certain that replacement indicator is not dented or scratched.
(2)Make certain that electrical connector is in correct condition.

D. Installation
(1)Install indicator, and tighten oval head screw on clamp.
(2)Connect electrical connector.

E. Close-Up
(1)Install panel 435VU by means of dzus fasteners.
(2)Close circuit breaker 18HT.
(3)Energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
Make certain that electronics racks ventilation is correct.

F. Tests
(1)On panel 435VU, select OFF legend off on LO PR SUPPLY pushbutton switch.
(2)Indicator pointer must remain in green band.
(3)On panel 414VU
- turn PED & OVHD PANEL rheostat to max. BRT position.

(4)De-energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).

PASSENGER - DESCRIPTION AND OPERATION

1. General

Passenger and cabin attendant's emergency oxygen is supplied by oxygen containers fitted above the passenger seats, in the lavatory ceiling and in the galley areas.

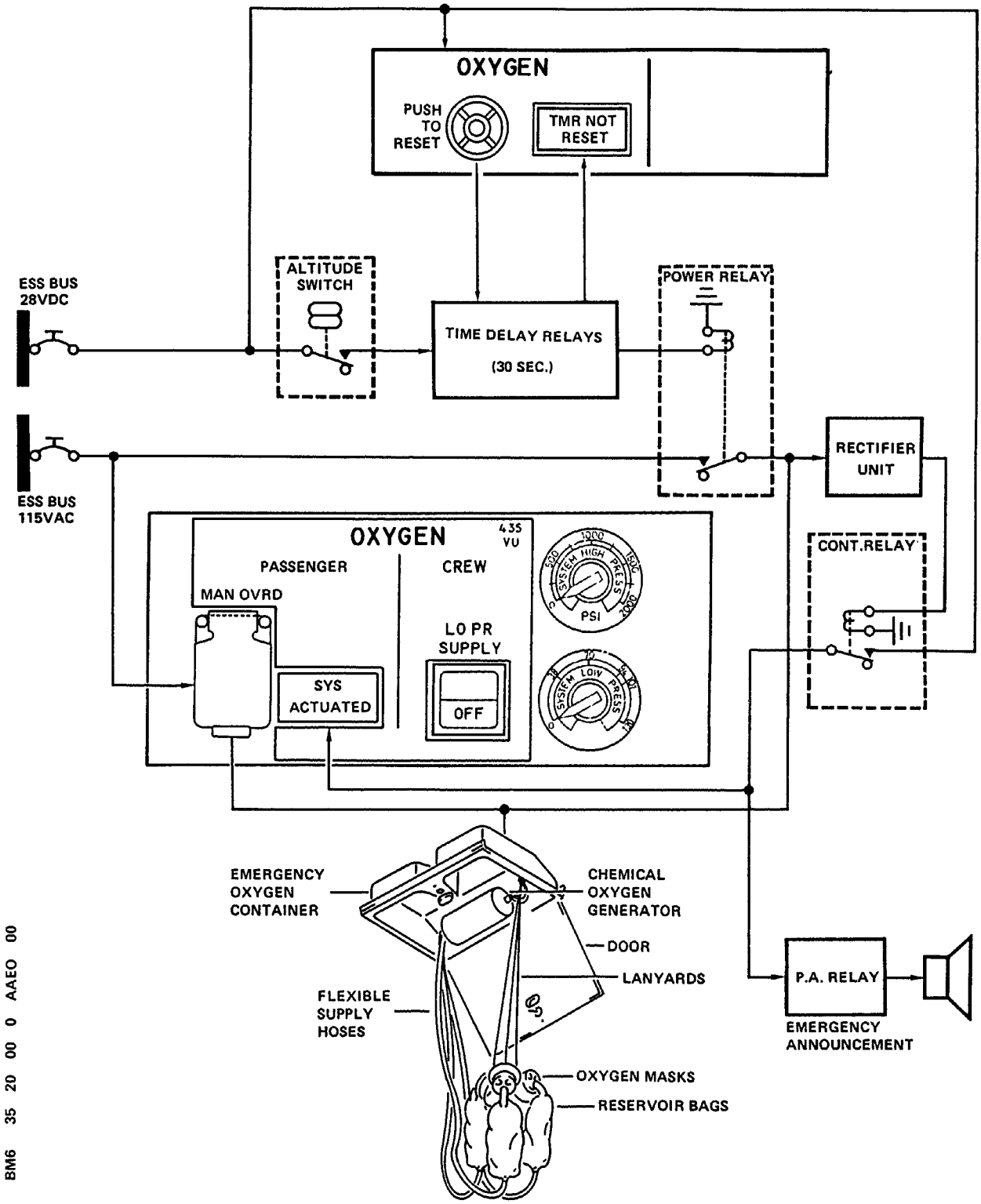
2. Description

A. The system is activated in two ways:
- by the altitude pressure switch, closing automatically at a cabin pressure corresponding to 14000 +0 -500 ft. (4260 +0 -150 m).
- by pressing the **MAN OVRD** switch in the flight compartment.

B. When the system is activated:
- the doors of the oxygen containers open. The masks drop down within reach of each seat occupant.
- pulling the mask towards the face activates the oxygen generator and oxygen is supplied to the user.
- an indicator light **SYS ACTUATED** comes on.
- an emergency annoucement is broadcast over the passenger address system.

C. After activation:
- Time-delay relays energize 30 sec. after the altitude switch closes to de-activate the electrical supply.

(Ref. Fig. 001)



Passenger Oxygen System
Figure 001

1. General

The passenger oxygen system supplies emergency oxygen to the passenger and cabin attendants when there is a failure of cabin pressurization. A chemical generator is used to give an oxygen supply for at least 22 minutes. The chemical generation of oxygen is started mechanically when the oxygen mask is used.

2. Component Location

(Ref. Fig. 001)

**ON A/C 101-200,

(Ref. Fig. 002)

**ON A/C 001-100,

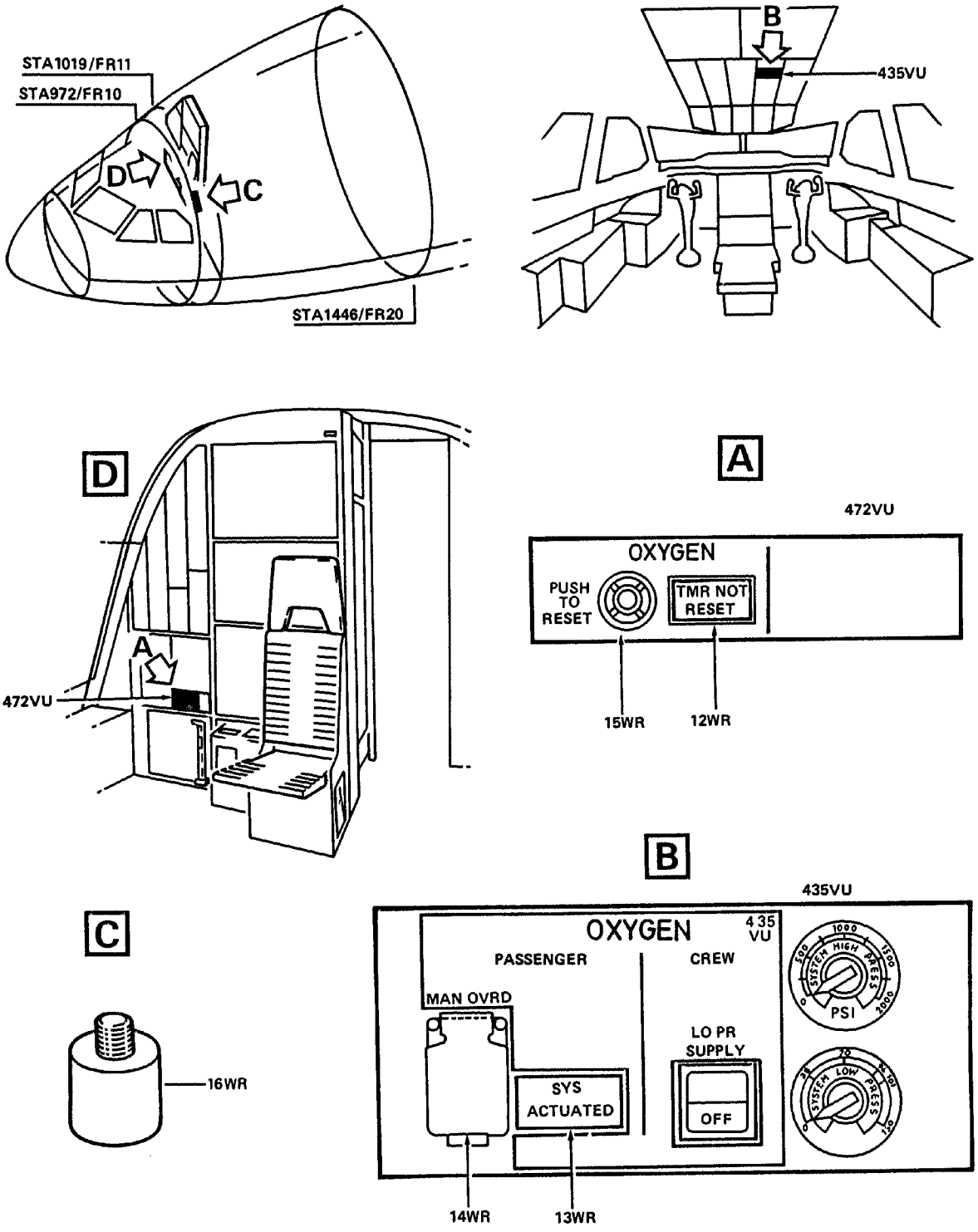
(Ref. Fig. 003)

**ON A/C ALL

FIN	FUNCTIONAL DESIGNATION	PANEL	ZONE	ACCESS DOOR	ATA REF.
8WR	TIME DELAY RELAY	282VU	122		
9WR	TIME DELAY RELAY	282VU	122		
10WR	POWER RELAY	282VU	122		
12WR	INDICATOR LIGHT TMR NOT RESET	472VU			
11WR	RELAY	282VU	122		
13WR	INDICATOR LIGHT SYS ACTUATED	435VU			
14WR	PUSHBUTTON SWITCH MAN OVRD	435VU			
15WR	PUSHBUTTON SWITCH RESET	472VU			
16WR	ALTITUDE SWITCH		211		35-21-41
19WR	PASS INFO RELAY	282VU			
23WR	RECTIFIER AND COIL ASSEMBLY	282VU			
	EMERGENCY OXYGEN CONTAINER (REF. CORRESPONDING FIGURE)		200		35-21-11

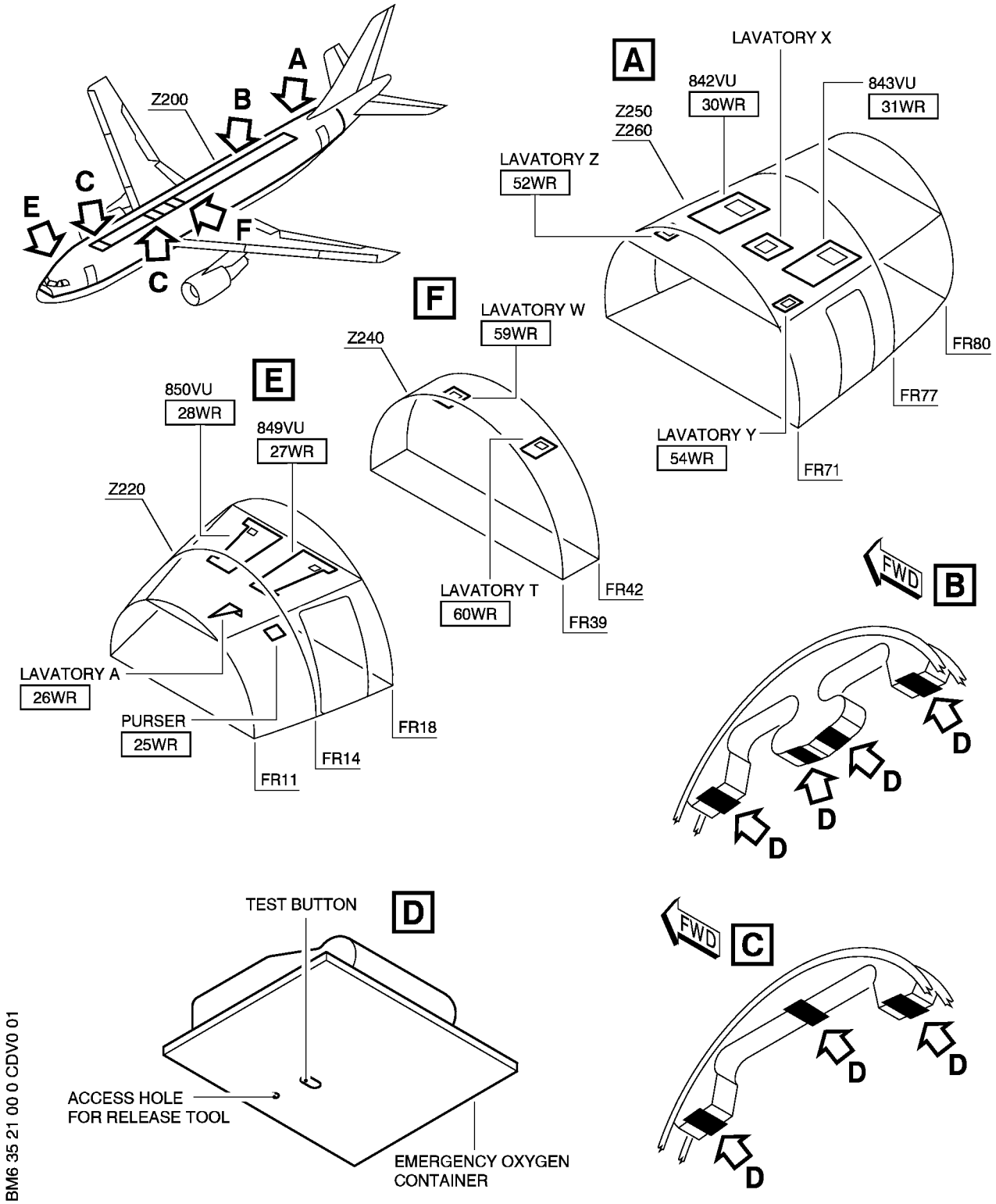
R **ON A/C 001-100, 105-200,

3. System Description (Ref. Fig. 004)



BM6 35 21 00 0 AAB0 00

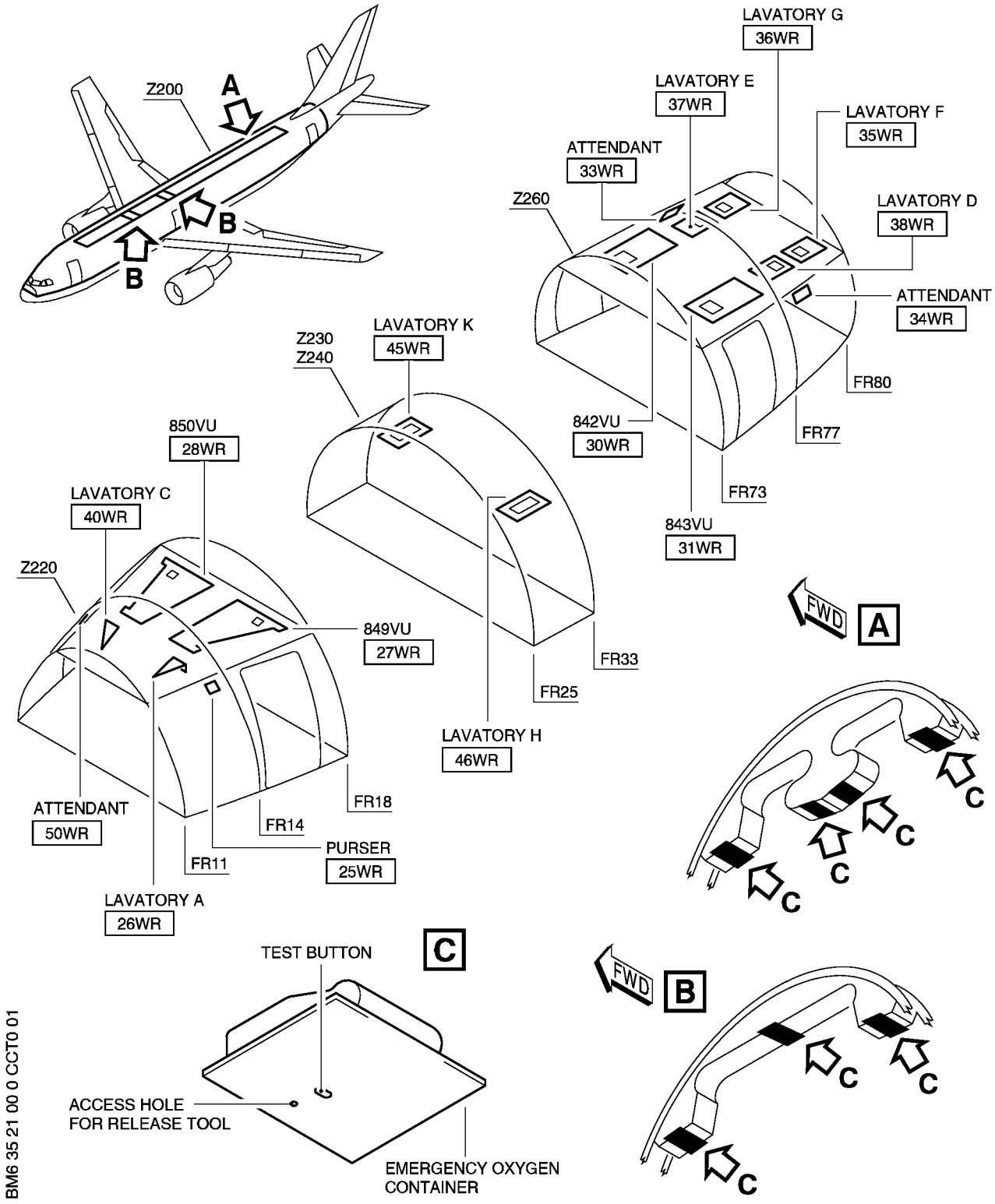
Component Location Cockpit
Figure 001



BM6 35 21 00 0 CDV0 01

Component Location Pax Compt
Figure 002

R



Component Location Pax Compt
Figure 003

R

**ON A/C 101-104,

3. System Description (Ref. Fig. 005)

**ON A/C ALL

The system consists of emergency oxygen containers and associated electrical controls.

A. Emergency Oxygen Containers
(1)Chemical Oxygen Generator
(a)The chemical generator is a sodium-chlorate core installed in a stainless-steel housing. A thermal insulating material is used between the core and the housing.
(b)The chemical generator actuator is a spring-loaded striker and a percussion cap installed at one end of the housing. A release pin holds the striker away from the cap. A lanyard connects the release pin to the oxygen mask.
(c)A filter assembly is installed in the outlet end of the housing to prevent contamination of the oxygen supply.
(d)A flexible hose connects the oxygen mask to the outlet manifold and the oxygen mask get its oxygen supply from the outlet. The outlet is installed on the housing.
(e)A relief valve is installed at the outlet end of the housing. This will prevent a high-pressure build-up if a failure of the outlet valve occurs.
(f)A temperature sensitive indicator tape is installed on the housing. The process of generating oxygen creates a fairly high temperature, this causes the indicator tape to change color from yellow to black. A black indicator tape signals that this chemical oxygen generator has been used.
(2)Continuous-flow oxygen mask.
(a)The oxygen mask is a face cone with a reservoir bag attached. The inhale, exhale and diluter valves are installed in the face cone.
(b)A flow indicator is installed in the flexible hose connected to the oxygen mask. The flow indicator will shown a green stripe when there is an oxygen flow.

**ON A/C 001-100,

(3)Door and Latch assembly.
(a)The electrical latch assembly holds the door of the emergency oxygen container closed. Spring pressure will open the door when the electrical latch assembly is electrically released.
R (b)A test button is installed in the emergency oxygen container to permit the inspection and testing of the emergency oxygen container.
R The test button is turned through 90° to permit the door to open a few degrees and will prevent the masks from falling out.
(c)The door can be opened manually with a release tool, via an access

hole, to release the electrical latch assembly.

**ON A/C 101-200,

(3)Door and Latch assembly.
(a)The electrical latch assembly holds the door of the emergency oxygen container closed. Spring pressure will open the door when the electrical latch assembly is electrically released.
R (b)A test button is installed in the emergency oxygen container to permit the inspection and testing of the emergency oxygen container.
R Depress the left-hand side of the test button until the cover-center
R spring retains the test button at 90° to the door surface.
R The test button permit the door to open a few degrees and will prevent the masks from falling out.
(c)The door can be opened manually with a release tool, via an access hole, to release the electrical latch assembly.

**ON A/C ALL

B. Altitude Switch
The altitude switch (16WR) closes when the cabin pressure drops to a pressure equivalent of 4260 +0/-150 m (14000 +0/-500 ft.). This operates the emergency oxygen supply system.

C. Power Relay
The power relay (10WR) is installed in the avionics compartment. It controls the 115 V AC supply to the electrical door-latch assemblies.

D. Time Delay Relays
The 30 s time delay relays (8WR and 9WR) are the slow-to-make type. They will switch off the 28 V DC supply to the oxygen power relay (10WR). The contacts are connected in series to prevent damage to the solenoids if one relay has a failure.

E. Pass Info Relay
When energized, the pass info relay (19WR) switches on an emergency announcement in the passenger address system and provides a hold-in circuit for SYS ACTUATED indicator light (13WR).

F. RESET Pushbutton Switch
The reset pushbutton switch (15WR) is used to reset the control circuit after operation.

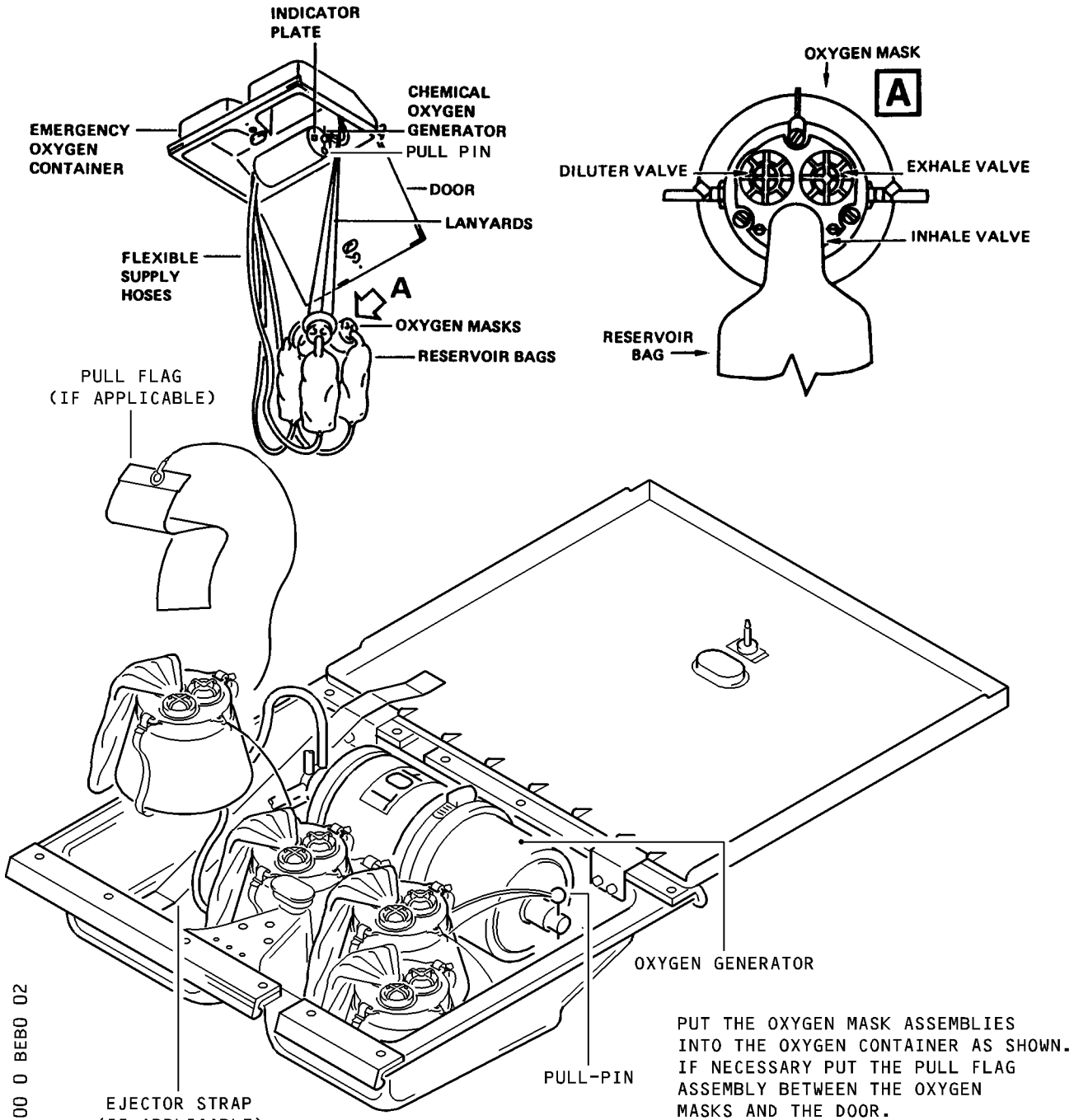
G. Indicator Lights
(1)SYS ACTUATED indicator light (13WR) comes on when the system is actuated.
(2)TMR NOT RESET indicator light (12WR) comes on when the contacts of the time delay relais (8WR and 9WR) are close and indicates that the system requires resetting.

H. MAN OVRD pushbutton switch
The MAN OVRD pushbutton switch (14WR) serves as a backup or override for the altitude switching circuit. A safety guard is fitted over the switch.

4. Operation (Ref. Fig. 006)

A. If the cabin pressure drops to a pressure corresponding to 14000 ft. +0 -500 ft. (4260 +0 -150 m), the altitude switch (16WR) closes, and feeds 28 V DC from busbar 306PP, via circuit breaker (1WR), to energize the power relay (10WR). 115 V AC from busbar 302XP supplied to the release solenoids of the emergency oxygen containers via circuit breakers (2WR thru 5WR) and the power relay contacts.
Relay 11WR is energized via rectifier and coil assembly (23WR).
(1)The oxygen container doors open.
(2)The oxygen masks fall out and hang by the lanyards within reach of the user passengers and cabin attendants.
(3)When a mask is pulled towards the face of the user, the release pin is withdrawn from its housing by the lanyard attached to the mask. This releases the striker which ignites the percussion cap to start a chemical reaction in the generator core. Oxygen is produced and is delivered through the flexible hose to the mask.
(a)The flow indicator shows a green stripe.
(4)The SYS ACTUATED indicator light (13WR) comes on.
(5)The pass info relay (19WR) operates and provides:
- a hold-in circuit for SYS ACTUATED indicator light (13WR).
- a circuit for emergency announcement transmission over the passenger address system.
(6)The time delay relays (8WR and 9WR) operate 30 seconds after the closing of the pressure switch (16WR) to de-energize the power relay (10WR).
(a)The TMR NOT RESET indicator light (12WR) comes on.
(7)When the RESET pushbutton switch (15WR) is pressed, the SYS ACTUATED and TMR NOT RESET indicator light (13WR and 12WR) goes off and the emergency announcement stops after an internally preselected time.

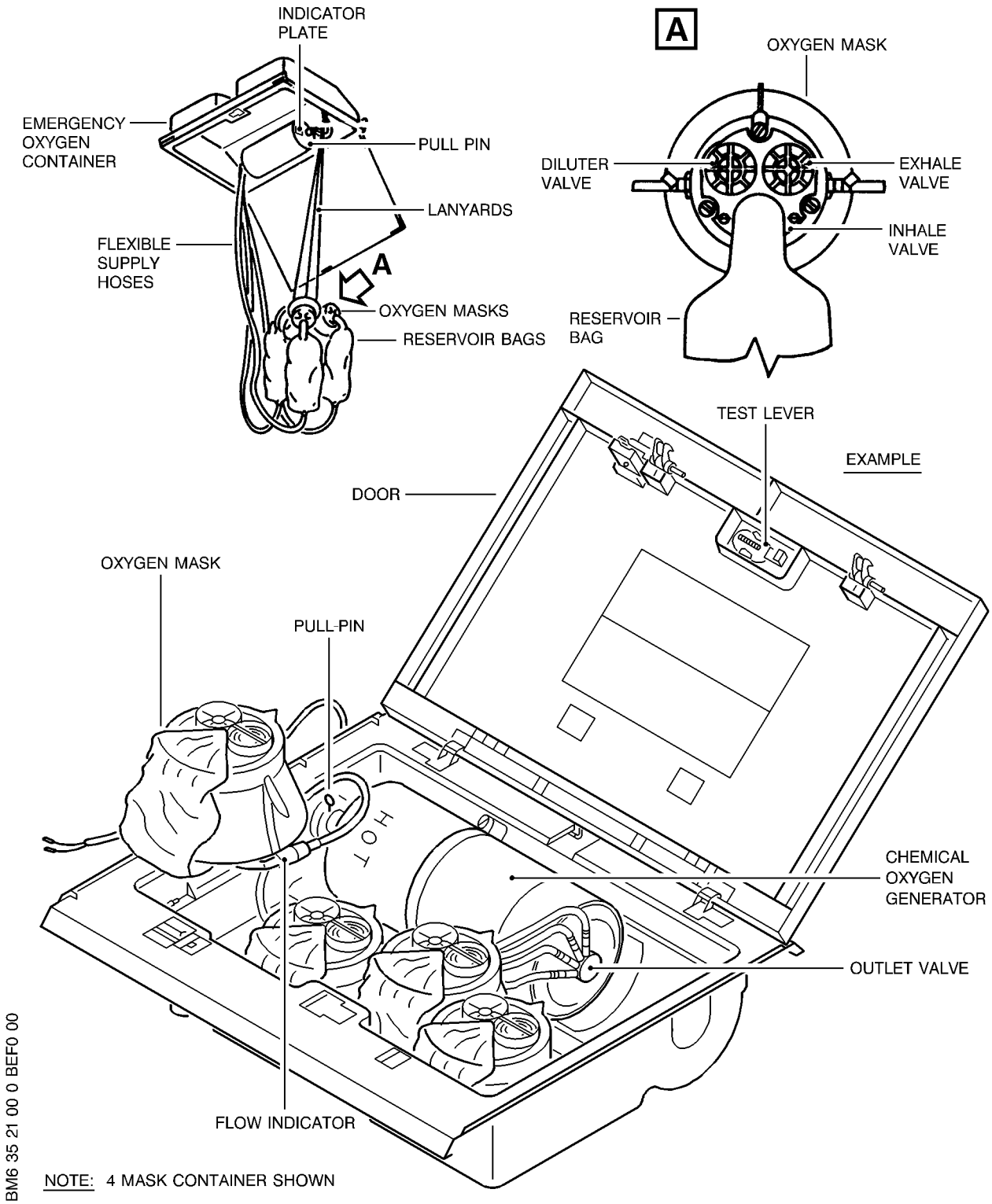
B. The system can be manually operated and the oxygen masks released by pressing the MAN OVRD switch (14WR).



BM6 35 21 00 0 BEB0 02

NOTE: 4 MASK CONTAINER SHOWN
PACKING PROCEDURE IS APPLICABLE TO 2,3 AND 4 MASK CONTAINERS

Oxygen Container
Figure 004



Oxygen Container
Figure 005

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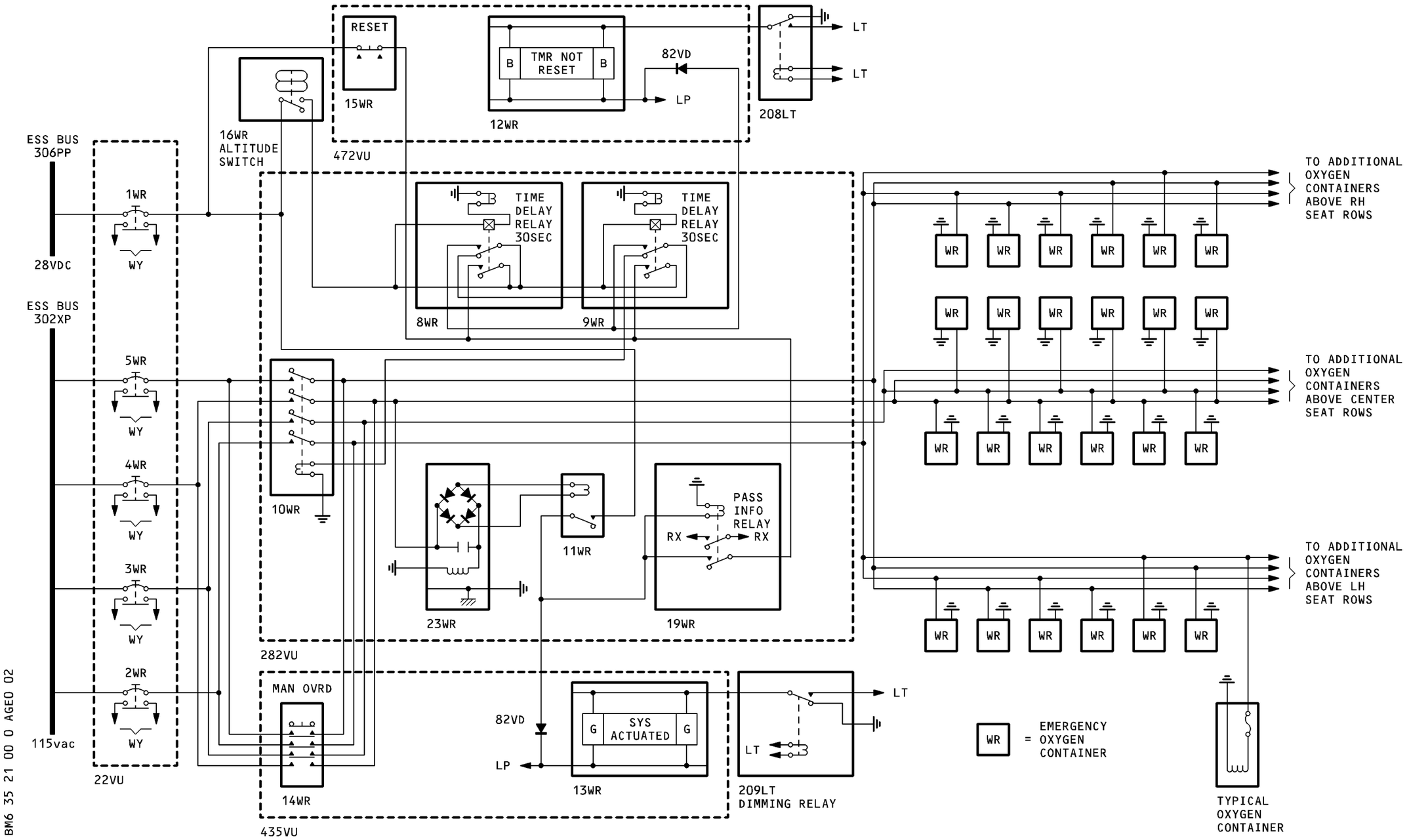


Electrical Schematic
Figure 006

WARNING : THE USE OF OIL AND OTHER PETROLEUM BASE LUBRICANTS WHEN IN CONTACT WITH OXYGEN EQUIPMENT WILL CREATE A DANGEROUS FIRE HAZARD.
SOLVENTS/CLEANING AGENTS ARE POISONOUS AND FLAMMABLE.

WARNING : USE SOLVENTS/CLEANING AGENTS ONLY IN AN AREA WITH A GOOD SUPPLY OF AIR.
OBEY THE MANUFACTURERS INSTRUCTIONS.
PUT ON PROTECTIVE CLOTHING.
DO NOT DRINK SOLVENTS/CLEANING AGENTS.
DO NOT SMOKE.
DO NOT BREATHE THE GAS.

WARNING : MAKE SURE THAT YOU OBEY THE MANUFACTURER'S INSTRUCTIONS AND NATIONAL HAZARDOUS MATERIAL REGULATIONS WHEN YOU MOVE OR KEEP THIS EQUIPMENT IN STORAGE:
R - CHEMICAL OXYGEN GENERATORS
- PROTECTIVE BREATHING EQUIPMENT
- FIXED AND PORTABLE OXYGEN CYLINDERS.
SPECIAL PRECAUTIONS ARE NECESSARY FOR THIS EQUIPMENT.

CAUTION : DO NOT PULL ON LANYARDS AS THE REMOVAL OF THE PULL PIN FROM UNUSED GENERATORS WILL START OXYGEN FLOW WHICH CANNOT BE STOPPED.

CAUTION : DO NOT LET THE CLEANING FLUIDS TOUCH THE RESERVOIR BAGS OR THE MASK VALVES.

1. Reasons for the Job

A. Cleaning and disinfecting of oxygen masks

B. Cleaning of door latch assembly

C. Packing and restowing of oxygen masks

2. Equipment and Materials

ITEM	DESIGNATION
A. Material No. 11-004	Cleaning Agents (Ref. 20-31-00)
B. Material No. 11-007	Cleaning Agents (Ref. 20-31-00)
C. Material No. 14-002	Disinfectants (Ref. 20-31-00)
D. 995000	Tool - Manual Release
E.	Sponge or Lint-Free Cloth
F.	Cotton Swab

Referenced Procedures

- 35-21-00, P. Block 501	Passenger Oxygen System
- 35-21-11, P. Block 401	Emergency Oxygen Container
- 35-21-13, P. Block 401	Emergency Oxygen Generator

3. Procedure

A. Job Set-Up

(1)Open, safety and tag the following circuit breakers:

PANEL	SERVICE	IDENT.	LOCATION
22VU	PASSENGER OXYGEN/CTL & WARN	1WR	H24
22VU	PASSENGER OXYGEN/ACTUATION	2WR	H25
22VU	PASSENGER OXYGEN/ACTUATION	3WR	H26
22VU	PASSENGER OXYGEN/ACTUATION	4WR	H27
22VU	PASSENGER OXYGEN/ACTUATION	5WR	H28

(2)Open emergency oxygen container door using manual release tool P/N 995000.

CAUTION : DO NOT PULL LANYARDS.

NOTE : Leave masks hanging, do not disconnect lanyards when cleaning. Do not disconnect supply line from Manifold.

B. Clean oxygen masks

CAUTION : DO NOT LET THE CLEANING FLUIDS TOUCH THE RESERVOIR BAGS OR THE MASK VALVES.

(1)Clean mask face cone and face seal with cleaning agent (Mat. No. 11-007) using sponge or lint-free cloth.

(2)Wipe face cone and face seal with lint-free cloth.

(3)Allow parts to dry at room temperature.

C. Disinfect masks

(1)Spray internal surface of face cone and face seal with disinfectants (Mat. No. 14-002).

D. Clean door latch assembly

WARNING : USE SOLVENTS/CLEANING AGENTS ONLY IN AN AREA WITH A GOOD SUPPLY OF AIR. OBEY THE MANUFACTURERS INSTRUCTIONS. PUT ON PROTECTIVE CLOTHING. DO NOT DRINK SOLVENTS/CLEANING AGENTS. DO NOT SMOKE. DO NOT BREATHE THE GAS. SOLVENTS/CLEANING AGENTS ARE POISONOUS AND FLAMMABLE.

(1)Clean all parts of the electrical latch and latch receptacle with solvent (Mat. No. 11-004) and lint-free cloth or cotton swab.

(2)Dry cleaned areas with dry, clean, compressed air.

NOTE : Make certain that door latching mechanism is clean and free of dust, nicotine and tar.

R **ON A/C 001-100,

E. Pack and restow oxygen masks (Ref. Fig. 301)

(1)Pack each oxygen mask assy as shown in (Ref. Fig. 301)

NOTE : Ensure the oxygen mask tubes are not kinked.

NOTE : Visually inspect oxygen generator and pull-pin for correct position.
Identification plate and outlet valve must be visible and facing outward. The pull-pin ring must be pointed outward.

(2)Hold masks in place, close and latch door.

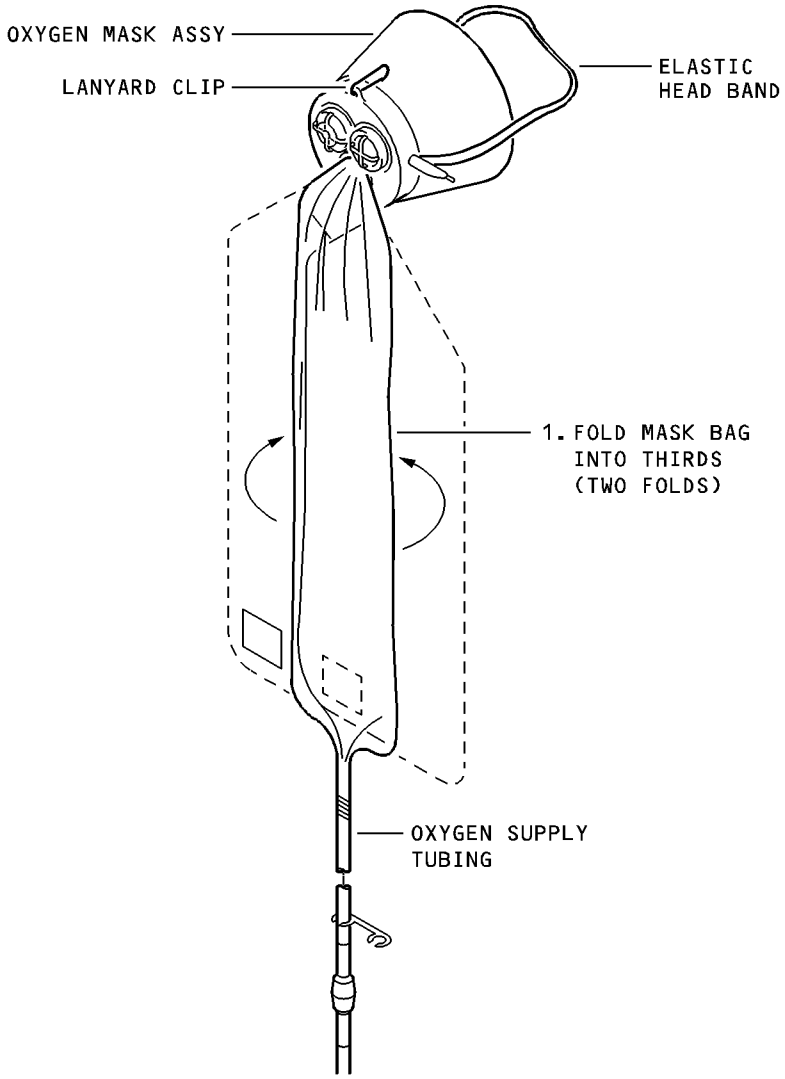
R **ON A/C 101-200,

R E. Pack and restow oxygen masks (Ref. Fig. 302)
R (1)Pack each oxygen mask assy as shown in (Ref. Fig. 302)
R NOTE : Ensure the oxygen mask tubes are not kinked.
R NOTE : Visually inspect oxygen generator and pull-pin for correct
R position.
R Identification plate and outlet valve must be visible and
R facing outward. The pull-pin ring must be pointed outward.
R (2)Hold masks in place, close and latch door.

R **ON A/C ALL

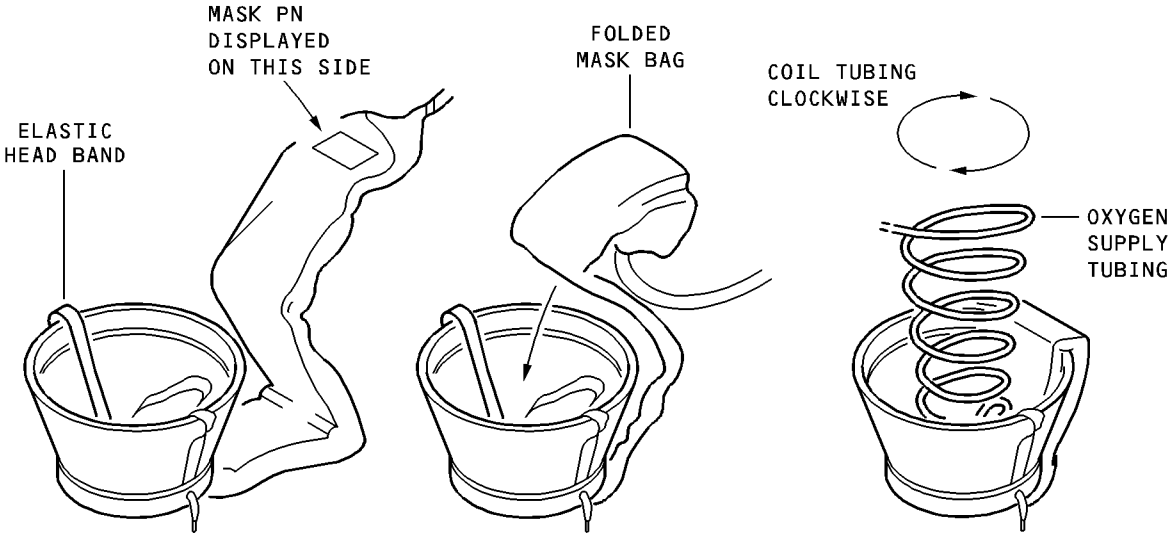
F. Test
(1)Carry out an operational test (Ref. 35-21-00, P. Block 501).
(2)Replace emergency oxygen container if door latching mechanism functions incorrectly (Ref. 35-21-11, P. Block 401).
(3)Replace oxygen generator when the indicator plate changes from yellow to black (Ref. 35-21-13, P. Block 401).

G. Close-Up
(1)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.



BM6 35 21 00 3 ACMA 01

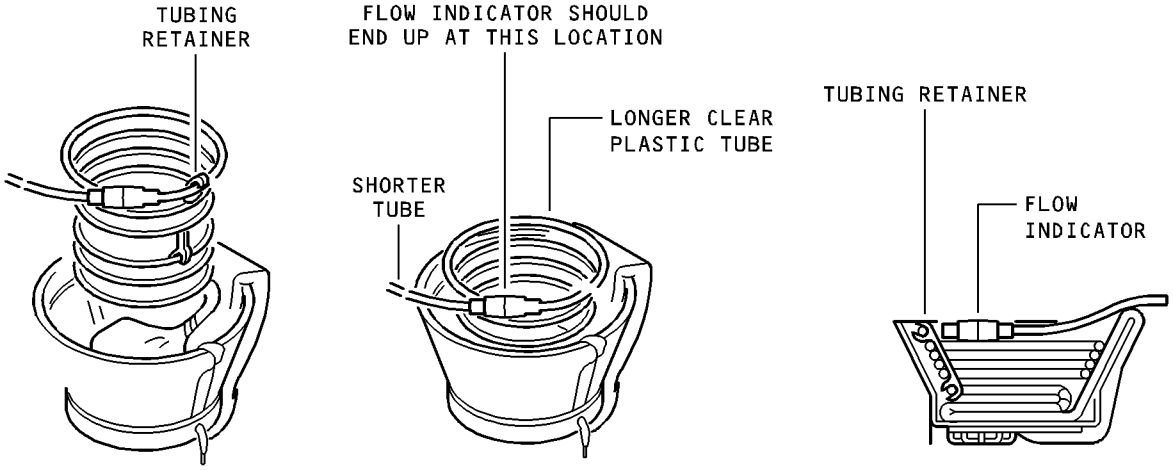
Oxygen Mask Packing (Sheet 1/3)
Figure 301



2. PLACE ELASTIC HEAD BAND INTO MASK

3. INSERT FOLDED MASK BAG

4. COIL TUBING CLOCKWISE INTO MASK FACE CONE CAVITY



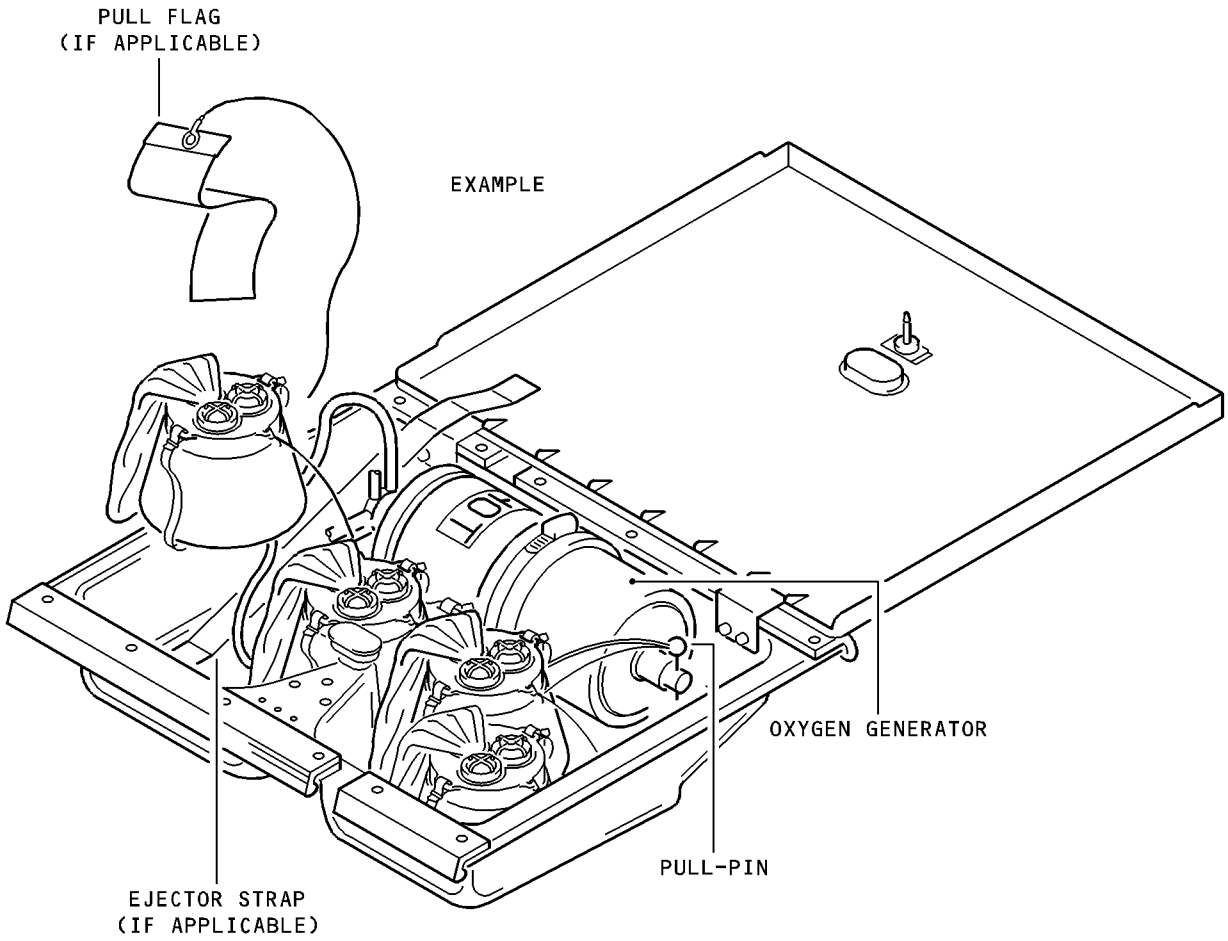
5. INSTALL TUBING RETAINER OVER MASK TUBING

6. PRESS TUBING, TUBING RETAINER, AND FLOW INDICATOR INTO CAVITY

7. CROSS SECTION SHOWING TUBING COILS BETWEEN ENDS OF TUBING RETAINER

BM6 35 21 00 3 ACMM 02

Oxygen Mask Packing (Sheet 2/3)
Figure 301

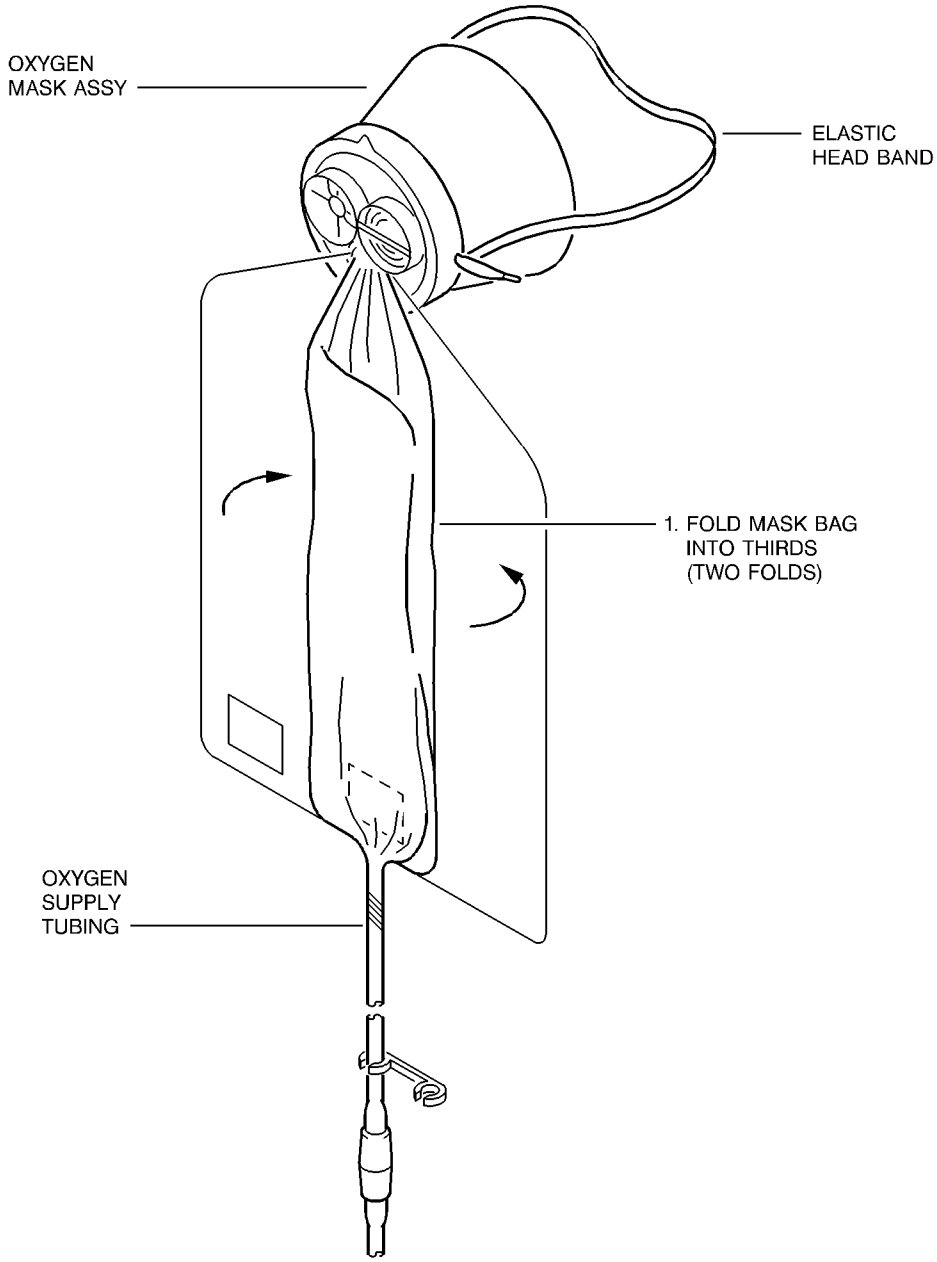


8. PUT THE OXYGEN MASK ASSEMBLIES INTO THE OXYGEN CONTAINER AS SHOWN. IF NECESSARY PUT THE PULL FLAG ASSEMBLY BETWEEN THE OXYGEN MASKS AND THE DOOR. IF NECESSARY PUT THE OXYGEN MASK ASSEMBLIES ON THE EJECTOR STRAPS.

BM6 35 21 00 3 ACMP 00

NOTE: 4 MASK CONTAINER SHOWN
PACKING PROCEDURE IS APPLICABLE TO 2,3 AND 4 MASK CONTAINERS

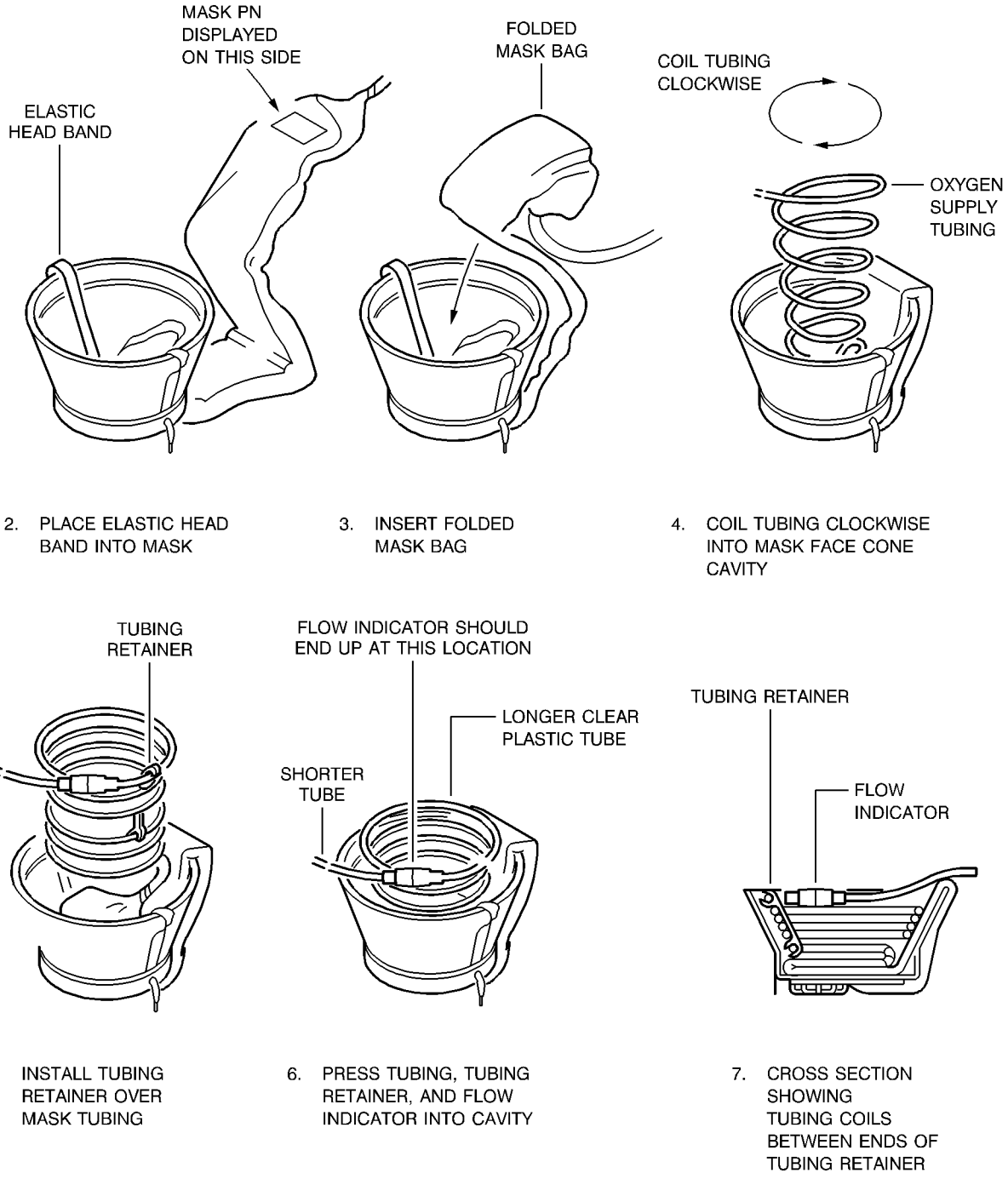
Oxygen Mask Packing (Sheet 3/3)
Figure 301



BM6 35 21 00 3 AFMA 00

Oxygen Mask Packing (Sheet 1/6)
Figure 302

R



2. PLACE ELASTIC HEAD BAND INTO MASK

3. INSERT FOLDED MASK BAG

4. COIL TUBING CLOCKWISE INTO MASK FACE CONE CAVITY

5. INSTALL TUBING RETAINER OVER MASK TUBING

6. PRESS TUBING, TUBING RETAINER, AND FLOW INDICATOR INTO CAVITY

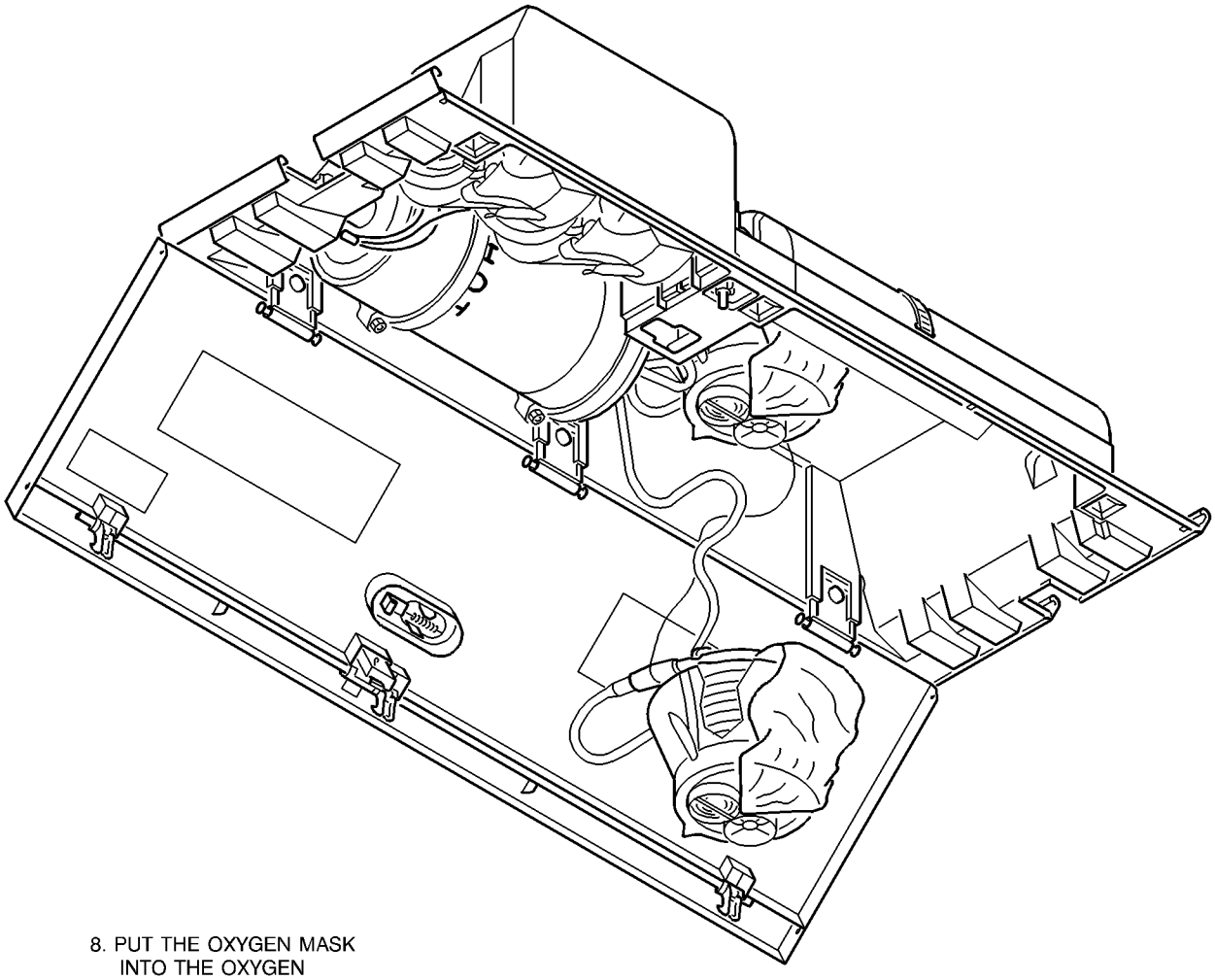
7. CROSS SECTION SHOWING TUBING COILS BETWEEN ENDS OF TUBING RETAINER

BM6 35 21 00 3 AFMM 00

Oxygen Mask Packing (Sheet 2/6)
Figure 302

R

EXAMPLE TYPE 1 CONTAINER



8. PUT THE OXYGEN MASK
INTO THE OXYGEN
CONTAINER AS SHOWN

BM6 35 21 00 3 AFME 00

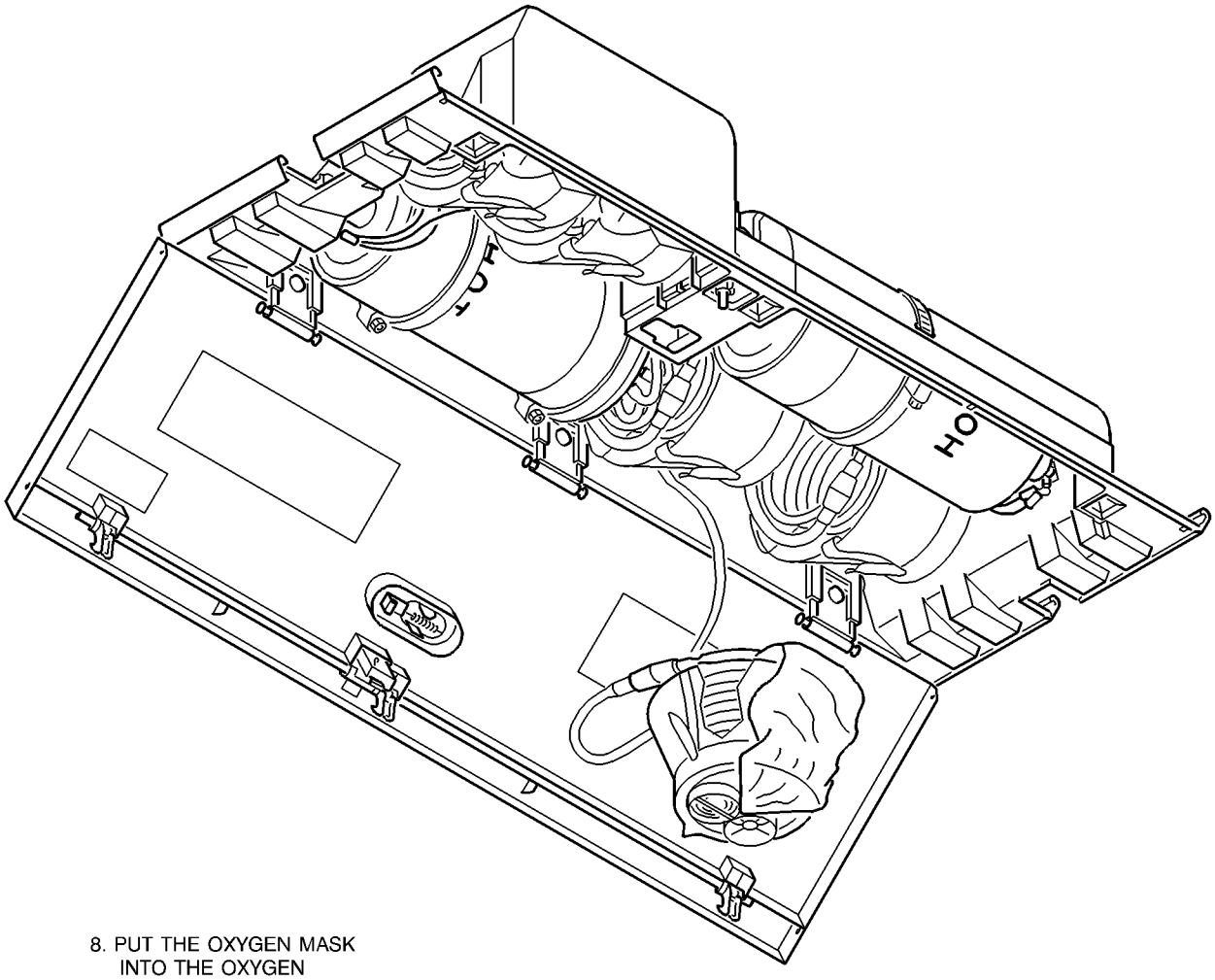
NOTE:

4 MASK CONTAINER SHOWN
PACKING PROCEDURE IS APPLICABLE TO 3 AND 4
MASK CONTAINERS

R

Oxygen Mask Packing (Sheet 3/6)
Figure 302

EXAMPLE TYPE 1 CONTAINER



8. PUT THE OXYGEN MASK INTO THE OXYGEN CONTAINER AS SHOWN

NOTE:

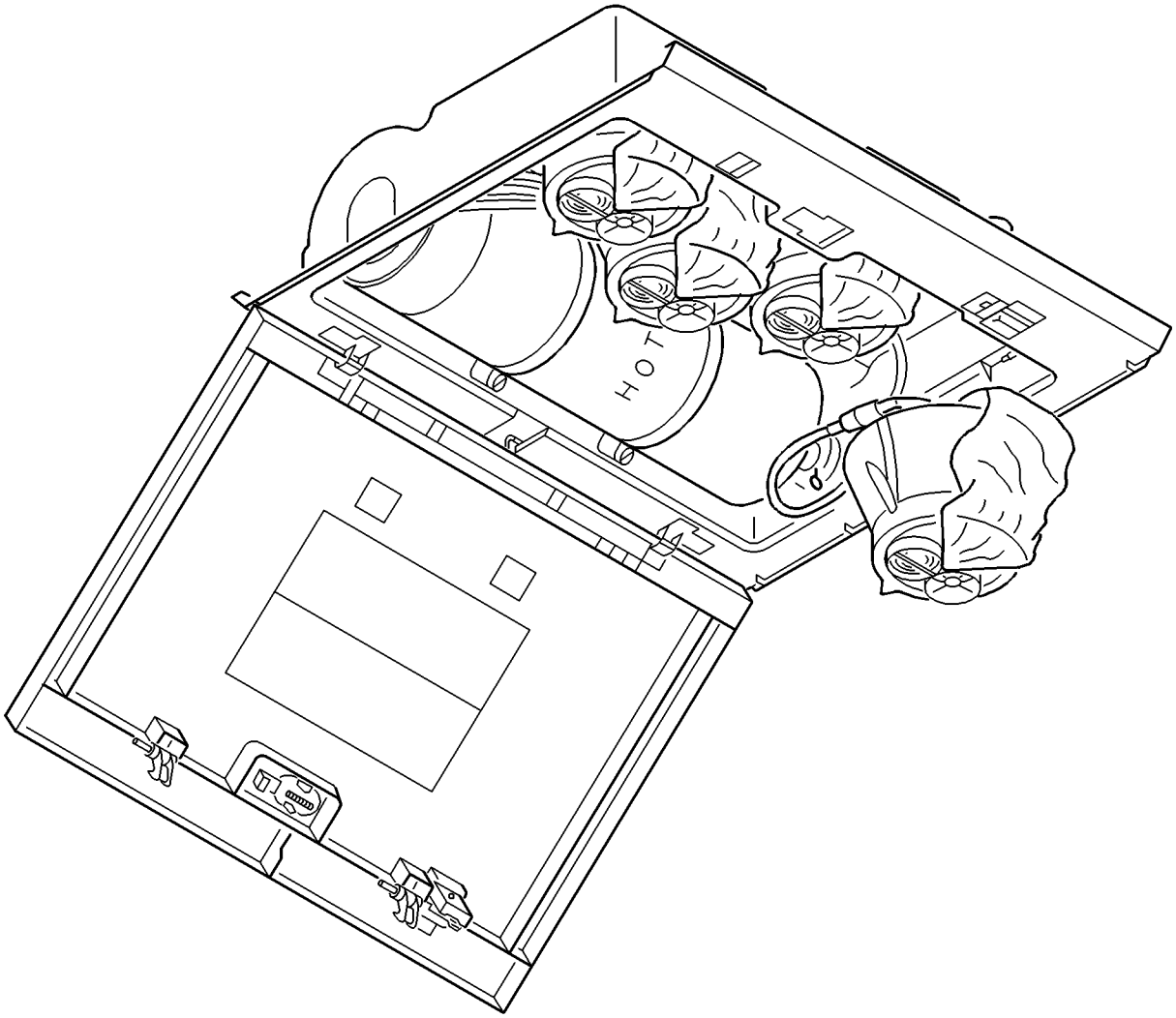
5 MASK CONTAINER SHOWN

BM6 35 21 00 3 AFMJ 00

R

Oxygen Mask Packing (Sheet 4/6)
Figure 302

EXAMPLE TYPE 2 CONTAINER



8. PUT THE OXYGEN MASK
INTO THE OXYGEN
CONTAINER AS SHOWN

BM6 35 21 00 3 AFMP 00

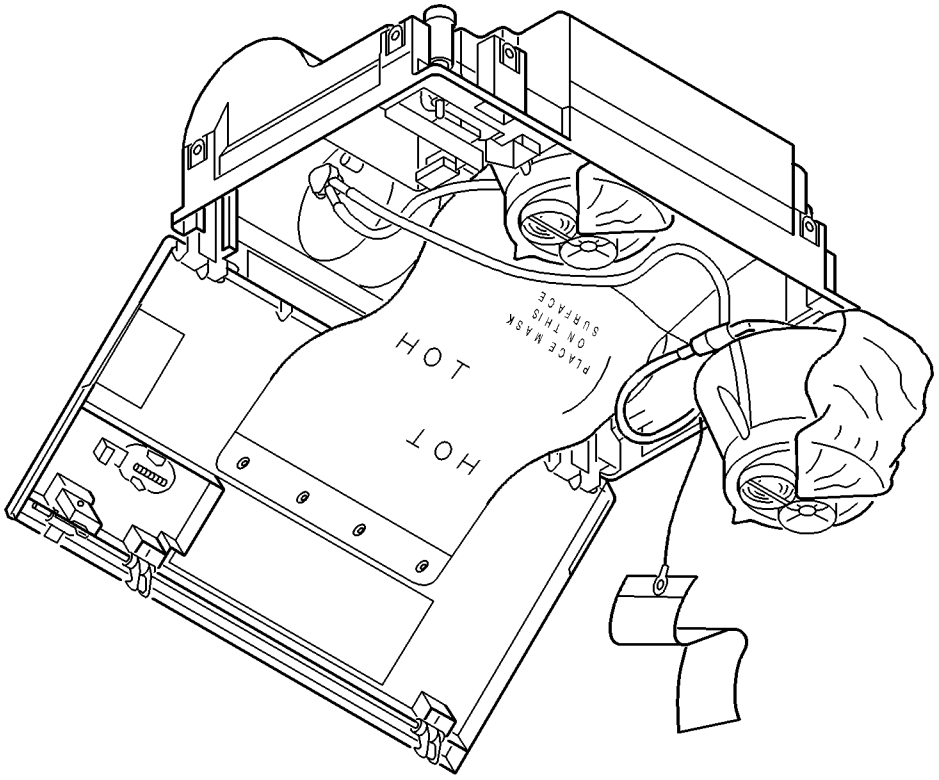
NOTE:

4 MASK CONTAINER SHOWN
PACKING PROCEDURE IS APPLICABLE FOR 2, 3
AND 4 MASK CONTAINERS

Oxygen Mask Packing (Sheet 5/6)
Figure 302

R

EXAMPLE TYPE 3 CONTAINER



8. PUT THE OXYGEN MASK
INTO THE OXYGEN
CONTAINER AS SHOWN
IF NECESSARY PUT THE PULL FLAG
BETWEEN THE OXYGEN MASKS AND THE DOOR

BM6 35 21 00 3 AFMU 00

R

Oxygen Mask Packing (Sheet 6/6)
Figure 302

1. Operational Test

A. Reason for the Job
(1)Perform operational test of manual release of passenger oxygen masks ('Passenger Oxygen/Man Ovrd' selection on the overhead panel).

B. Equipment and Materials

ITEM	DESIGNATION
(1)	Electrical Ground Power Unit - 3-Phase, 115/200 V, 400 Hz
Referenced Procedure - 24-41-00, P. Block 301	AC External Power Control

**ON A/C 001-100,

C. Procedure
(1)Job Set-Up
(a)Connect electrical ground power unit and energize aircraft electrical network (Ref. 24-41-00, P. Block 301).
(b)Make certain that electronics racks ventilation is correct.
(c)On all passenger emergency oxygen containers, pull out and rotate
R test buttons through 90° to TEST position.

**ON A/C 101-200,

C. Procedure
(1)Job Set-Up
(a)Connect electrical ground power unit and energize aircraft electrical network (Ref. 24-41-00, P. Block 301).
(b)Make certain that electronics racks ventilation is correct.
R (c)On all emergency oxygen containers push the L/H side of the test button on the door, until the over-center spring keeps the lever at 90 degrees to the door surface.
NOTE: The test button should stay in this position until manually set.

**ON A/C ALL

(d)Make certain that the following circuit breakers are closed:

PANEL	SERVICE	IDENT.	LOCATION
22VU	PASSENGER OXYGEN CTL & WARN	1WR	H24
22VU	PASSENGER OXYGEN ACTUATION	2WR	H25

PANEL	SERVICE	IDENT.	LOCATION
22VU	PASSENGER OXYGEN ACTUATION	3WR	H26
22VU	PASSENGER OXYGEN ACTUATION	4WR	H27
22VU	PASSENGER OXYGEN ACTUATION	5WR	H28
22VU	PASSENGER ADDRESS	5RY	B15
132VU	TAPE REPRODUCER	1RX	L77
132VU	TAPE REPRODUCER	2RX	L76

(2)Test

ACTION	RESULT
1. On panel 435VU: - lift guard and press pushbutton **MAN OVRD 14WR.**	On panel 435VU: - indicator light **13WR SYS ACTUATED** comes on. Passenger address system: - If programmed the emergency announcement commences. On all emergency oxygen containers: - all doors open to the position permitted by test buttons.
2. On panel 472VU: - press pushbutton **RESET 15WR.**	On panel 435VU: - indicator light **13WR SYS ACTUATED** goes off.
3. At purser's station Announcement Control Unit (7RX): - press pushbutton **STOP.**	Passenger address system: - If programmed the emergency announcement ceases.

**ON A/C 001-100,

(3)Close-Up

(a)Close doors of all emergency oxygen containers and rotate test buttons through 90°, allow test buttons to retract under spring tension to the operating position.

(b)De-energize aircraft electrical network and disconnect electrical ground power unit (Ref. 24-41-00, P. Block 301).

(c)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.

**ON A/C 101-200,

(3)Close-Up

(a)Push the doors of the emergency oxygen containers to the closed position until they engage.

(b)On the emergency oxygen containers push the test button back to the normal position and let them retract into their containers.

NOTE: Spring tension retracts the test button automatically when

they are in the normal position.
(c)De-energize aircraft electrical network and disconnect electrical ground power unit (Ref. 24-41-00, P. Block 301).
(d)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.

**ON A/C ALL

2. Functional Test

A. Reason for the Job
(1)Functional test of automatic release of passenger oxygen masks.
(2)Detailed visual inspection of masks, generators (inclusive sensitive tape) and release catches.

B. Equipment and Materials

ITEM	DESIGNATION
(1)98A35207599000	Adapter-Hose, Altitude Switch
(2)	Electrical Ground Power Unit - 3-Phase, 115/200 V, 400 Hz
(3)	Vacuum Source and Altitude Indicator

Referenced Procedures

- 24-41-00, P. Block 301	AC External Power Control
- 35-21-00, P. Block 301	Passenger Oxygen System
- 35-21-41, P. Block 401	Altitude Switch

C. Procedure
(1)Job Set-Up
(a)Detach altitude switch 16WR from its bracket (Ref. 35-21-41, P.Block 401), but do not disconnect the electrical connector. Connect it to a vacuum source using hose-adapter P/N 98A35207599000.
(b)Connect electrical ground power unit and energize aircraft electrical network (Ref. 24-41-00, P.Block 301).
(c)Make certain that electronics racks ventilation is correct.

(d)Make certain that the following circuit breakers are closed:

PANEL	SERVICE	IDENT.	LOCATION
22VU	PASSENGER OXYGEN CTL & WARN	1WR	H24
22VU	PASSENGER OXYGEN ACTUATION	2WR	H25
22VU	PASSENGER OXYGEN ACTUATION	3WR	H26
22VU	PASSENGER OXYGEN ACTUATION	4WR	H27
22VU	PASSENGER OXYGEN ACTUATION	5WR	H28
22VU	PASSENGER ADDRESS	5RY	B15
132VU	TAPE REPRODUCER	1RX	L77
132VU	TAPE REPRODUCER	2RX	L76

(2)Test

ACTION	RESULT
1. On vacuum source: - slowly increase altitude approximately 15000 ft.	On panel 435VU: - indicator light SYS ACTUATED 13WR comes on at 14000 (+0 -500) ft. Passenger address system: - If programmed the emergency announcement commences at 14000 (+0 -500) ft. On all emergency oxygen containers: - all doors open at 14000 (+0 -500) ft. and the masks drop down. On panel 472VU, after 30 sec.: - indicator light TMR NOT RESET 12WR comes on.
2. On vacuum source: - slowly decrease altitude to 0 ft.	
3. On panel 472VU: - press pushbutton RESET 15WR.	On panel 435VU: - indicator light SYS ACTUATED 13WR goes off. On panel 472VU: - indicator light TMR NOT RESET 12WR goes off.
4. At purser's station Announcement Control Unit (7RX): - press pushbutton STOP.	Passenger address system: - If programmed the emergency announcement ceases.
5. On all emergency oxygen containers: - visually inspect all generators, masks, hoses and latches for cleanliness and deterioration. - visually inspect generator and pull-pin for correct position. Identification plate and outlet valve must be visible and facing outward. The pull-pin ring must be pointed outward. (Ref. 35-21-00- P. Block 301).	

R NOTE : For A/C equipped with Draeger Oxygen containers TYPE 1
R (PN 1*C********004) and TYPE 2 containers (PN22C********004) make sure
R that the foam pad is installed and in good condition.

**ON A/C 001-100,

(3)Close-Up
(a)Pack and restow oxygen masks (Ref. 35-21-00, P. Block 301).
(b)Close doors of all emergency oxygen containers.

(c)De-energize aircraft electrical network and disconnect electrical ground power unit (Ref. 24-41-00, P. Block 301).
(d)Disconnect vacuum source and adapter P/N 98A35207599000 from altitude switch 16WR and refit altitude switch. (Ref. 35-21-41, P. Block 401).
(e)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.

**ON A/C 101-200,

(3)Close-Up
(a)Pack and restow oxygen masks (Ref. 35-21-00, P. Block 301).
(b)Close doors of all emergency oxygen containers.
1 Push the doors of the emergency oxygen containers to the closed position until they engage.
R 2 On the emergency oxygen containers, push the test buttons back to the normal position and let them retract into the containers.
NOTE : Spring tension retracts the test buttons automatically when they are in the normal position.
(c)De-energize aircraft electrical network and disconnect electrical ground power unit (Ref. 24-41-00, P. Block 301).
(d)Disconnect vacuum source and adapter P/N 98A35207599000 from altitude switch 16WR and refit altitude switch. (Ref. 35-21-41, P. Block 401).
(e)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.

**ON A/C ALL

3. Operational and Functional Test

A. Reason for the Job
(1)To combine operational and functional test into a single task.

B. Equipment and Materials

ITEM	DESIGNATION
(1)98A35207599000	Adapter-Hose, Altitude Switch
(2)	Electrical Ground Power Unit-3-Phase, 115/200 V, 400 Hz
(3)	Vacuum Source and Altitude Indicator

**ON A/C 001-100,

Referenced Procedures
- 24-41-00, P. Block 301 AC External Power Control
- 35-21-00, P. Block 301 Passenger Oxygen System
- 35-21-41, P. Block 401 Altitude Switch

C. Procedure
(1)Job Set-Up
(a)Detach altitude switch 16WR from its bracket (Ref. 35-21-41, P. Block 401), but do not disconnect the electrical connector. Connect a vacuum source using hose-adapter P/N 98A35207599000.
(b)Connect electrical ground power unit and energize aircraft electrical network (Ref. 24-41-00, P. Block 301).
(c)Make certain that electronics racks ventilation is correct.
(d)On the first two emergency oxygen containers of each side and center
R row, pull out and rotate test buttons through 90° to TEST position.

**ON A/C 101-200,

Referenced Procedures
- 24-41-00, P. Block 301 AC External Power Control
- 35-21-00, P. Block 301 Passenger Oxygen System
- 35-21-41, P. Block 401 Altitude Switch

C. Procedure
(1)Job Set-Up
(a)Detach altitude switch 16WR from its bracket (Ref. 35-21-41, P. Block 401), but do not disconnect the electrical connector. Connect a vacuum source using hose-adapter P/N 98A35207599000.
(b)Connect electrical ground power unit and energize aircraft electrical network (Ref. 24-41-00, P. Block 301).
(c)Make certain that electronics racks ventilation is correct.
(d)On the first two emergency oxygen containers of each side and
R center row, set the test button to the test position.
R Push the LH side of the test button on the door until the over-center spring keeps the lever at 90 ° to the door surface.

R NOTE : The test button should stay in this position until manually set.

**ON A/C ALL

(e)Make certain that the following circuit breakers are closed:

PANEL	SERVICE	IDENT.	LOCATION
22VU	PASSENGER OXYGEN CTL & WARN	1WR	H24
22VU	PASSENGER OXYGEN ACTUATION	2WR	H25
22VU	PASSENGER OXYGEN ACTUATION	3WR	H26
22VU	PASSENGER OXYGEN ACTUATION	4WR	H27
22VU	PASSENGER OXYGEN ACTUATION	5WR	H28
22VU	PASSENGER ADDRESS	5RY	B15
132VU	TAPE REPRODUCER	1RX	L77
132VU	TAPE REPRODUCER	2RX	L76

(2)Test

ACTION	RESULT
1. On vacuum source: - slowly increase altitude to approximately 15000 ft.	On panel 435VU: - indicator light SYS ACTUATED 13WR comes on at 14000 (+0 -500) ft. Passenger address system: - emergency announcement commences at 14000 (+0 -500) ft. On all emergency oxygen containers: - all doors open at 14000 (+0 -500) ft. and the masks drop down, except those where test buttons are in test position. On panel 472VU, after 30 sec.: - indicator light TMR NOT RESET 12WR comes on.
2. On vacuum source: - slowly decrease altitude to 0 ft.	
3. On panel 472VU: - press pushbutton RESET 15WR.	On panel 435VU: - indicator light SYS ACTUATED 13WR goes off. On panel 472VU: - indicator light TMR NOT RESET 12WR goes off.
4. At purser's station Announcement Control Unit (7RX): - press pushbutton STOP.	Passenger address system: - emergency announcement ceases.
5. Close first two emergency oxygen containers of each side and center row: - put test buttons to operating position.	
6. On panel 435VU: - lift guard and press pushbutton MAN OVRD 14WR.	On panel 435VU: - indicator light SYS ACTUATED 13WR comes on. Passenger address system: - emergency announcement commences. On emergency oxygen containers: - doors closed in para. 5. open and the masks drop down.
7. On panel 472VU: - press pushbutton RESET 15WR.	On panel 435VU: - indicator light SYS ACTUATED 13WR goes off.
8. At purser's station Announcement Control Unit (7RX): - press pushbutton STOP.	Passenger address system: - emergency announcement ceases.
9. On all emergency oxygen containers: - visually inspect all generators, masks, hoses and latches for cleanliness and deterioration. - visually inspect generator and pull-pin for correct position.	

ACTION	RESULT
Identification plate and outlet valve must be visible and facing outward. The pull-pin ring must be pointed outward. (Ref. 35-21-00, P. Block 301).	

**ON A/C 001-100,

(3)Close-Up
(a)Pack and restow oxygen masks (Ref. 35-21-00, P. Block 301).
(b)Close doors of all emergency oxygen containers.

(c)De-energize aircraft electrical network and disconnect electrical ground power unit (Ref. 24-41-00, P. Block 301).

(d)Disconnect vacuum source and adapter P/N 98A35207599000 from altitude switch 16WR and refit altitude switch (Ref. 35-21-41, P. Block 401).
(e)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.

**ON A/C 101-200,

(3)Close-Up
(a)Pack and restow oxygen masks (Ref. 35-21-00, P. Block 301).
(b)Close doors of all emergency oxygen containers.
1 Push the doors of the emergency oxygen containers to the closed position until they engage.
R 2 On the emergency oxygen containers, push the test buttons back to the normal position and let them retract into the containers.
R NOTE : Spring tension retracts the test buttons automatically when thrx are in the normal position.
(c)De-energize aircraft electrical network and disconnect electrical ground power unit (Ref. 24-41-00, P. Block 301).
(d)Disconnect vacuum source and adapter P/N 98A35207599000 from altitude switch 16WR and refit altitude switch (Ref. 35-21-41, P. Block 401).
(e)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.

1. Passenger Oxygen System - Inspection/Check

WARNING : MAKE SURE THAT YOU OBEY THE MANUFACTURER'S INSTRUCTIONS AND NATIONAL HAZARDOUS MATERIAL REGULATIONS WHEN YOU MOVE OR KEEP THIS EQUIPMENT IN STORAGE:
- CHEMICAL OXYGEN GENERATORS
- PROTECTIVE BREATHING EQUIPMENT
- FIXED AND PORTABLE OXYGEN CYLINDERS.
SPECIAL PRECAUTIONS ARE NECESSARY FOR THIS EQUIPMENT.

CAUTION : DO NOT PULL THE GENERATOR END OF THE LANYARD. YOU WILL START THE OPERATION OF THE GENERATOR.

A. Reasons for the Job
(1)Detailed visual inspection of the oxygen mask assemblies.
(2)Detailed visual inspection of the chemical oxygen generators.
(3)Detailed visual inspection of the release latches.

B. Equipment and Materials

ITEM	DESIGNATION
(1)	Electrical Ground Power Unit - 3-Phase, 115/200 V, 400 Hz

Referenced Procedures

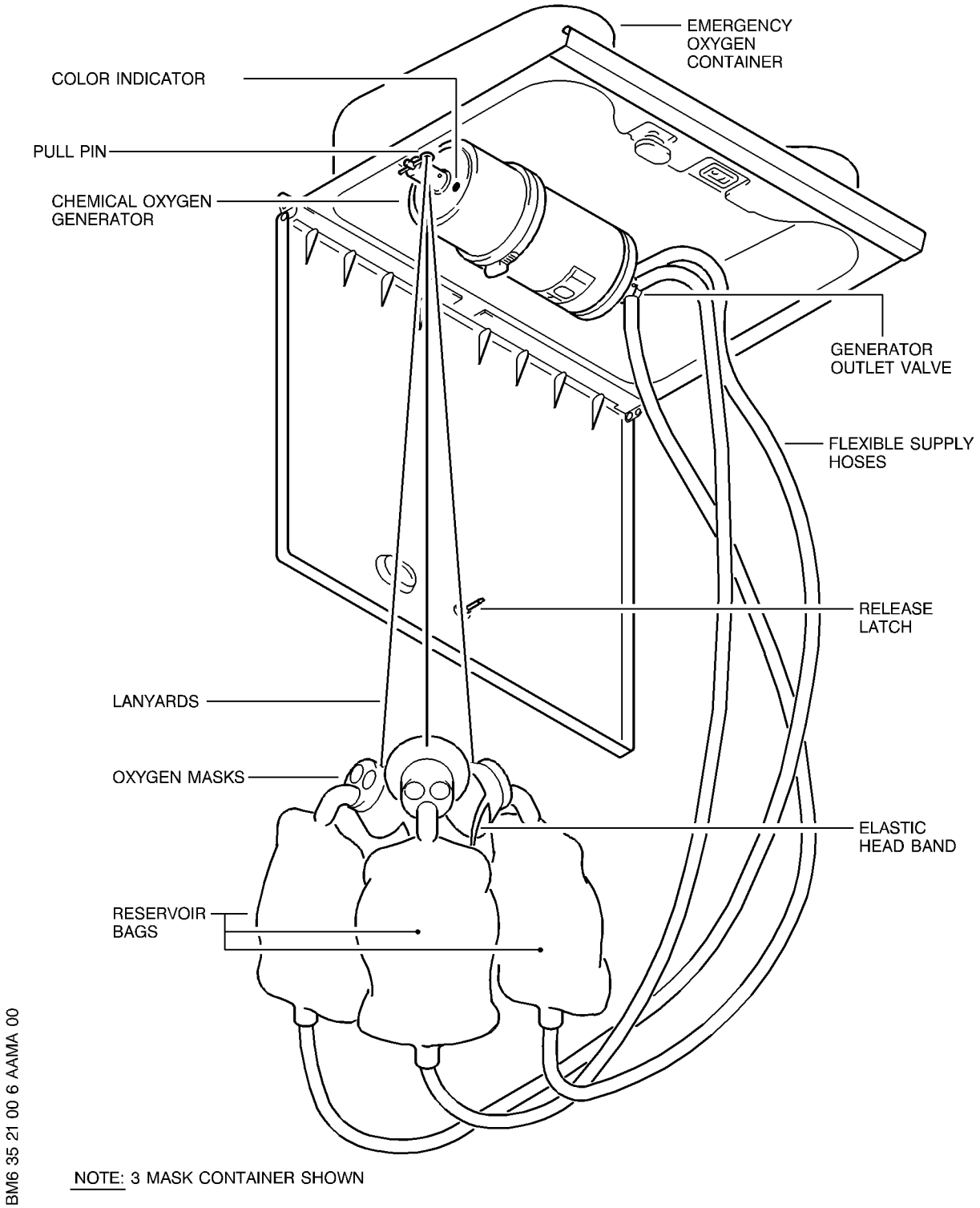
- 24-41-00, P. Block 301	AC External Power Control
- 35-21-00, P. Block 301	Passenger Oxygen System
- 35-21-13, P. Block 401	Emergency Oxygen Generator

C. Procedure
(Ref. Fig. 601)

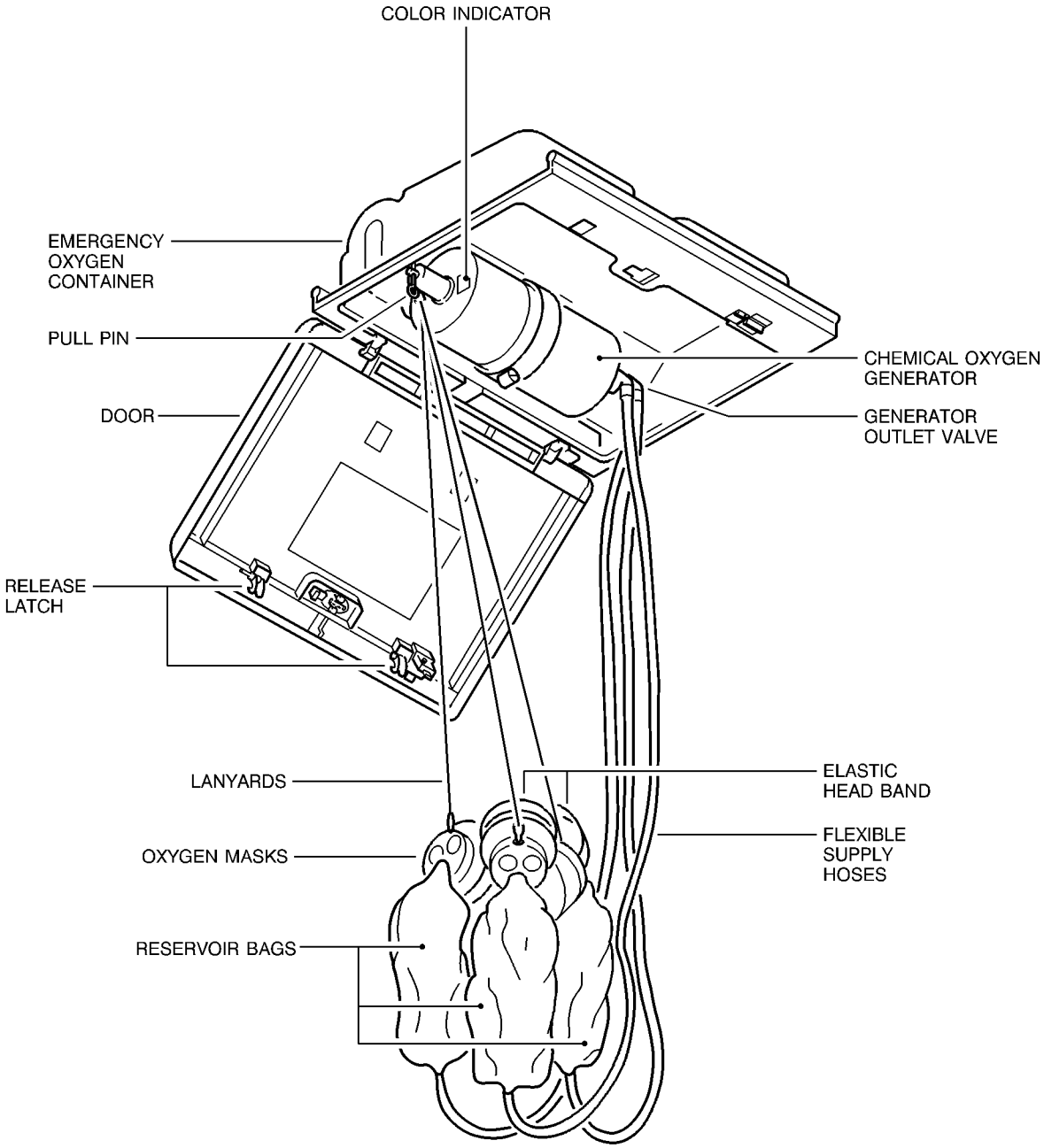
(1)Job Set-Up
(a)Connect the electrical ground power unit and energize the aircraft electrical network (Ref. 24-41-00, P. Block 301).
(b)Make certain that the electronics racks ventilation is correct.
(c)Make certain that the following circuit breakers are closed:

PANEL	SERVICE	IDENT.	LOCATION
22VU	PASSENGER OXYGEN CTL & WARN	1WR	H24
22VU	PASSENGER OXYGEN ACTUATION	2WR	H25
22VU	PASSENGER OXYGEN ACTUATION	2WR	H26
22VU	PASSENGER OXYGEN ACTUATION	2WR	H27
22VU	PASSENGER OXYGEN ACTUATION	2WR	H28

(2)Open the emergency oxygen containers.
(a)On the overhead panel 435VU, lift the guard and press the MASK MAN OVR 14WR pushbutton.



Typical Emergency Oxygen Container
(Sheet 1 of 2)
Figure 601



NOTE: 3 MASK CONTAINER SHOWN

BM6 35 21 00 6 AAMM 00

Typical Emergency Oxygen Container
(Sheet 2 of 2)
Figure 601

(b)On the panel 472VU, press the pushbutton PUSH TO RESET 15WR.

(3)Detailed visual inspection of oxygen mask assemblies:
(Ref. Fig. 601).

CAUTION : DO NOT PULL THE GENERATOR-END OF THE LANYARD.
YOU WILL START THE OPERATION OF THE GENERATOR.

(a)Examine the oxygen masks:
- for cracks
- for color changes
- for dirt.

(b)Examine the flexible supply hoses:
- for correct attachment to the reservoir bag and the generator
- for kinks
- for color changes.

(c)Examine the reservoir bags:
- for correct connection to the mask and the supply hoses
- for tears
- that you can read the inscription.

(d)Examine the elastic headband:
- for overextension
- for elasticity
- for correct attachment to the mask.

(e)Do a check of the lanyards:
1 Give the lanyard to mask connection a strong, short pull to make sure that the connection is satisfactory.
R 2 Do a visual check of the attachments and make sure that only one
R lanyard cord is in the eyelet of the release pin. The other lan-
R yard cords are on the shaft of the release pin.

(4)Detailed visual inspection of the chemical oxygen generators
(Ref. Fig. 601)

CAUTION : DO NOT PULL THE GENERATOR-END OF THE LANYARD.
YOU WILL START THE OPERATION OF THE GENERATOR.

(a)Examine the chemical oxygen generators. Make sure that:
- the generator outlet valve is not damaged, corroded, cracked or loose
- the pull-pin is installed in the generator housing
- the temperature sensitive indicator tape is yellow.

NOTE : A black indicator tape signals that the chemical oxygen generator has been used and should be replaced (Ref. 35-21-13, P. Block 401).

(5)Detailed visual inspection of the release latches
(Ref. Fig. 601)
(a)Examine the release latches for damage.

(6)Close-Up
(a)Install the oxygen masks in the oxygen containers (Ref. 35-21-00, P. Block 301).

(b)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.
(c)De-energize aircraft electrical network and disconnect electrical ground power unit (Ref. 24-41-00, P. Block 301).

EMERGENCY OXYGEN CONTAINER - REMOVAL/INSTALLATION

1. Reason for the Job

A. Malfunction of Door Latching Mechanism

2. Equipment and Materials

ITEM	DESIGNATION
A. 98A25207503000	Pulley Assembly - Sealing Cord

Referenced Procedures

- 25-23-13, P. Block 401	Utility Area Ceiling Panels
- 25-23-21, P. Block 401	Upper Sidewall Panels
- 25-23-41, P. Block 401	Door Frame Lining
- 35-21-00, P. Block 501	Passenger Oxygen System

3. Procedure

A. Job Set-Up

(1)Open, safety and tag the following circuit breakers:

PANEL	SERVICE	IDENT.	LOCATION
22VU	PASSENGER OXYGEN/CTL & WARN	1WR	H24
22VU	PASSENGER OXYGEN/ACTUATION	2WR	H25
22VU	PASSENGER OXYGEN/ACTUATION	3WR	H26
22VU	PASSENGER OXYGEN/ACTUATION	4WR	H27
22VU	PASSENGER OXYGEN/ACTUATION	5WR	H28

**ON A/C 001-100,

(Ref. Fig. 401)

**ON A/C 101-200,

(Ref. Fig. 402)

**ON A/C ALL

WARNING: MAKE SURE THAT YOU OBEY THE MANUFACTURER'S INSTRUCTIONS AND NATIONAL HAZARDOUS MATERIAL REGULATIONS WHEN YOU MOVE OR KEEP THIS EQUIPMENT IN STORAGE:

R - CHEMICAL OXYGEN GENERATORS
- PROTECTIVE BREATHING EQUIPMENT
- FIXED AND PORTABLE OXYGEN CYLINDERS.

SPECIAL PRECAUTIONS ARE NECESSARY FOR THIS EQUIPMENT.

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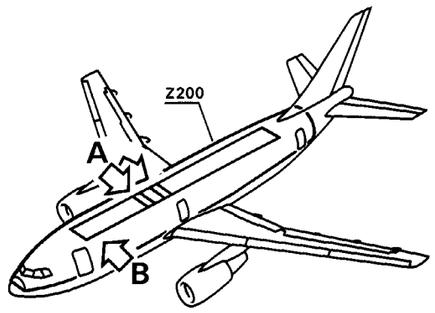
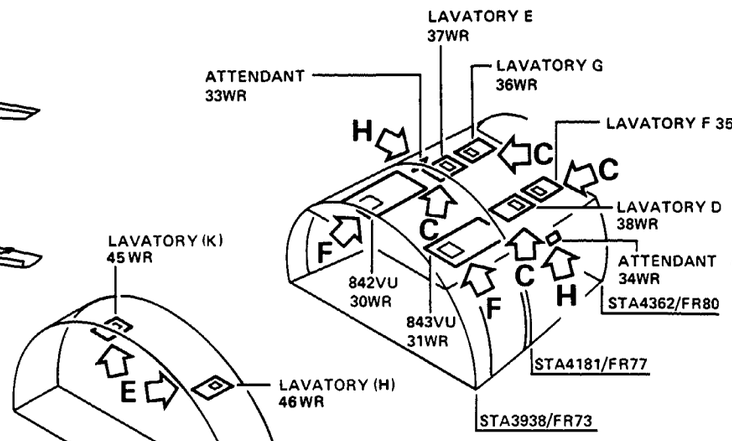
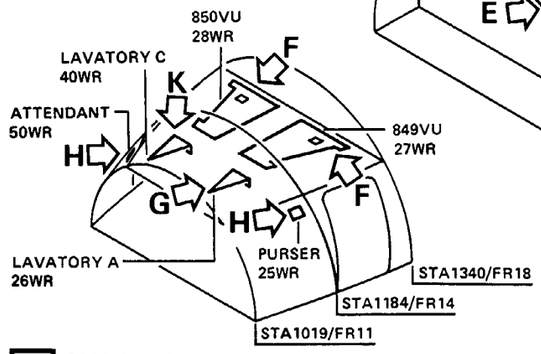
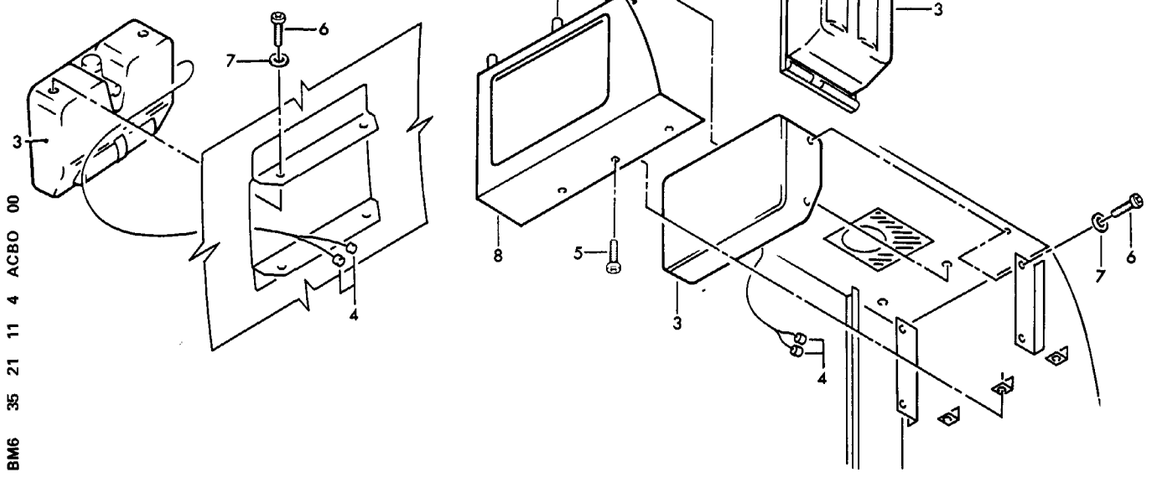


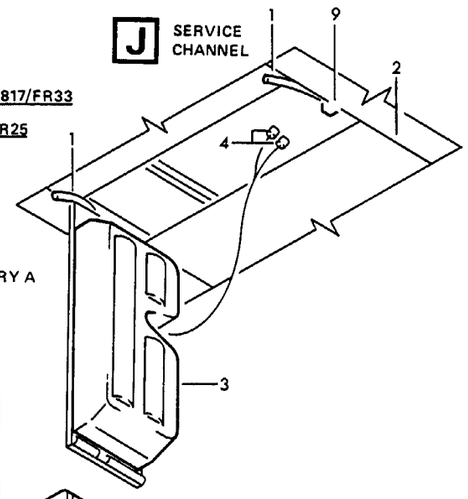




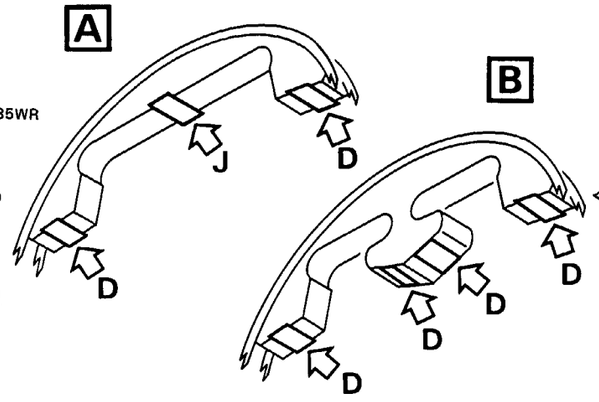
H DOOR FRAME LINING AND UPPER SIDE WALL

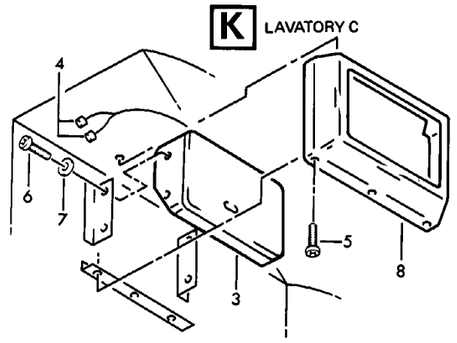


G LAVATORY A

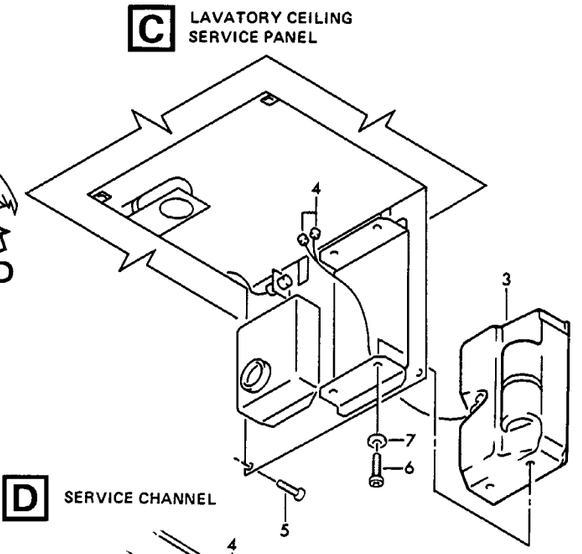


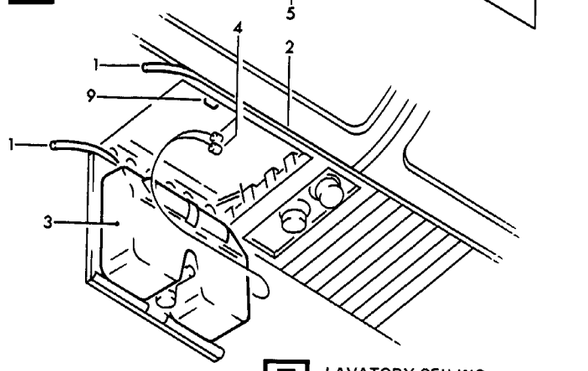
J SERVICE CHANNEL

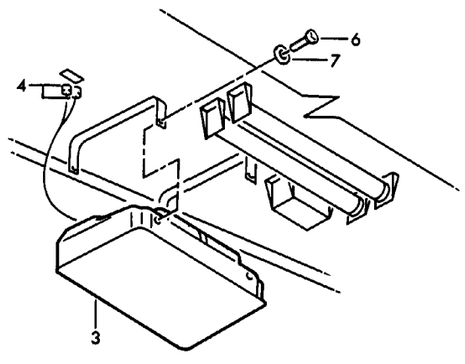


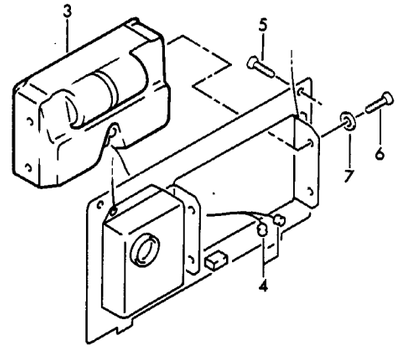


K LAVATORY C









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Emergency Oxygen Containers
Figure 401

R EFFECTIVITY: 001-100,

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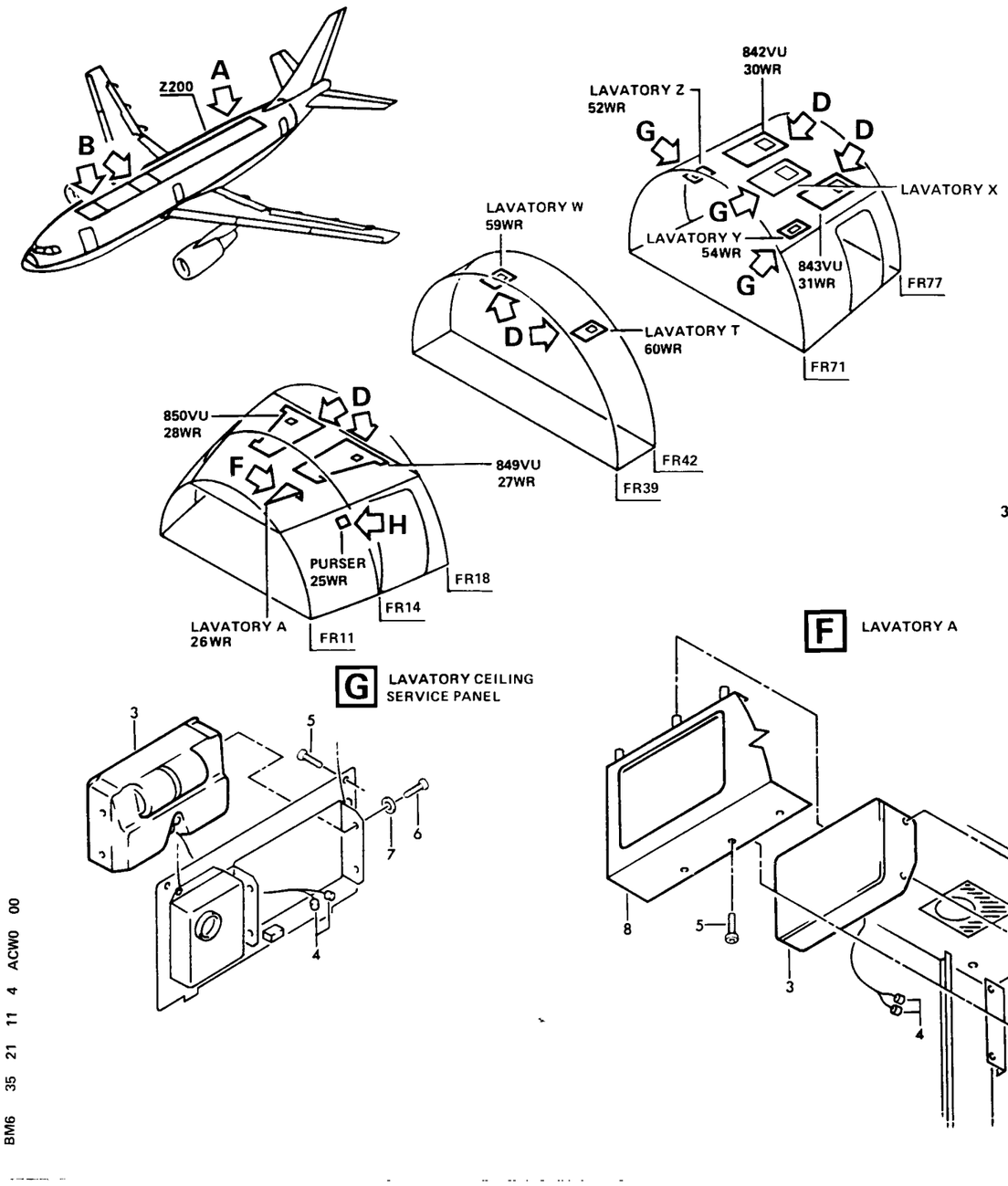

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Emergency Oxygen Containers
Figure 402

CAUTION: AFTER REMOVAL OF THE EMERGENCY OXYGEN CONTAINERS, MAKE SURE THAT THE SAFTY RINGS OR THE SAFTY PINS ARE INSTALLED IF YOU MUST:
- MOVE THE EMERGENCY OXYGEN CONTAINERS TO A DIFFERENT LOCATION, OR
- PUT THEM INTO STORAGE.

**ON A/C 001-100,

B. Removal
(1)Removal of service channel-mounted emergency oxygen containers.
(a)Remove mounting seals (1) from service rails (2).
(b)Disengage and lower one side of oxygen container (3).
(c)Disconnect electrical connectors (4) and release cable ties.
(d)Remove oxygen container (3) from service rail (2).
(2)Removal of utility area ceiling panel-mounted emergency oxygen containers.
(a)Release quick-release fasteners and remove panel (Ref. 25-23-13, P. Block 401).
(b)Disconnect electrical connectors (4) and release cable ties.
(c)Remove screws (6) and washers (7) from brackets.
(d)Remove oxygen container (3) from brackets.
(3)Removal of lavatory-mounted emergency oxygen containers.
(a)Remove screws (5) from lavatory ceiling service panel and lower panel.
(b)Disconnect electrical connectors (4) and release cable ties.
(c)Remove screws (6) and washers (7) from brackets.
(d)Remove oxygen container (3) from brackets.
(4)Removal of door frame lining and upper sidewall-mounted emergency oxygen containers.
(a)Remove appropriate panel:
- door frame lining (Ref. 25-23-41, P. Block 401)
- upper sidewall (Ref. 25-23-21, P. Block 401).
(b)Disconnect electrical connectors (4) and release cable ties.
(c)Remove screws (6) and washers (7) from brackets.
(d)Remove oxygen container (3) from brackets.

R

**ON A/C 101-200,

B. Removal
(1)Removal of service channel-mounted emergency oxygen containers.
(a)Remove mounting seals (1) from service rails (2).
(b)Disengage and lower one side of oxygen container (3).
(c)Disconnect electrical connectors (4) and release cable ties.
(d)Remove oxygen container (3) from service rail (2).
(2)Removal of utility area ceiling panel-mounted emergency oxygen containers.
(a)Release quick-release fasteners and remove panel (Ref. 25-23-13, P. Block 401).
(b)Disconnect electrical connectors (4) and release cable ties.

(c)Remove screws (6) and washers (7) from brackets.
(d)Remove oxygen container (3) from brackets.
(3)Removal of lavatory-mounted emergency oxygen containers.
(a)Remove screws (5) from lavatory ceiling service panel and lower panel.
(b)Disconnect electrical connectors (4) and release cable ties.
(c)Remove screws (6) and washers (7) from brackets.
(d)Remove oxygen container (3) from brackets.
(4)Removal of door frame lining-mounted emergency oxygen containers.
(a)Remove appropriate panel (Ref. 25-23-41, P. Block 401).
(b)Disconnect electrical connectors (4) and release cable ties.
(c)Remove screws (6) and washers (7) from brackets.
(d)Remove oxygen container (3) from brackets.
(5)Removal of lavatory A-mounted emergency oxygen container.
(a)Remove screws (5) from oxygen container cover (8) and remove cover.
(b)Disconnect electrical connectors (4) and release cable ties.
(c)Remove screws (6) and washers (7) from brackets.
(d)Remove oxygen container (3) from brackets.

**ON A/C ALL

CAUTION: IF THERE IS A YELLOW WARNING FLAG ON THE OUTSIDE OF THE EMERGENCY OXYGEN CONTAINER, A SAFTY RING OR A SAFTY PIN IS INSTALLED. THIS SAFTY RING OR SAFTY PIN MUST BE REMOVED BEFORE THE EMERGENCY OXYGEN CONTAINERS ARE INSTALLED ON THE AIRCRAFT.

**ON A/C 001-100,

C. Installation
(1)Installation of service channel-mounted emergency oxygen containers.
(a)Remove and discard the old test button label.
(b)Fill the date (month and year) in the space of the new test button label as necessary and apply the new test button label at the end of the test button assy.
(c)Put oxygen container (3) in position and attach one side to service rail (2).
(d)Connect electrical connectors (4) and secure excess connecting cable.
(e)Lift and engage oxygen container (3) to service rail (2).
R (f)Make sure that there is a clearance of 1,5 mm to 2,0 mm at each
R side of the oxygen container door.
R If necessary, release clamping block (9) reposition oxygen container
R and secure clamping block (9).
(g)Install mounting seals (1) into service rails (2) using pulley assembly P/N 98A25207503000.
NOTE : Use roller along mounting seals (1) in both directions. Make sure that the joints of mounting seals (1) do not align with the joints between the panels.
(2)Installation of utility area ceiling panel-mounted emergency oxygen containers.
(a)Remove and discard the old test button label.
(b)Fill the date (month and year) in the space of the new test button

label as necessary and apply the new test button label at the end of the test button assy.

(c)Put the oxygen container (3) on the brackets of the ceiling panel and attach it with screws (6) and washers (7).

(d)Connect electrical connectors (4) and secure cable ties.

(e)Locate panel and secure quick-release fasteners (Ref. 25-23-13, P. Block 401).

(3)Installation of lavatory-mounted emergency oxygen containers.

(a)Remove and discard the old test button label.

(b)Fill the date (month and year) in the space of the new test button label as necessary and apply the new test button label at the end of the test button assy.

(c)Put the oxygen container (3) on the brackets of the lavatory ceiling service panel and attach it with screws (6) and washers(7).

(d)Connect the electrical connectors (4) and secure cable ties.

(e)Install the lavatory ceiling service panel with screws (5).

(4)Installation of door frame lining and upper sidewall-mounted emergency oxygen containers.

(a)Remove and discard the old test button label.

(b)Fill the date (month and year) in the space of the new test button label as necessary and apply the new test button label at the end of the test button assy.

(c)Put the oxygen container (3) in position and make certain that the door-hinge is at the lower side of the container (3).

(d)Install the oxygen container (3) on the brackets with screws (6) and washers (7).

(e)Connect electrical connectors (4) and secure cable ties.

(f)Install the appropriate panel:

- door frame lining (Ref. 25-23-41, P. Block 401)
- upper sidewall (Ref. 25-23-21, P. Block 401).

**ON A/C 101-200,

C. Installation

(1)Installation of service channel-mounted emergency oxygen containers.

(a)Remove and discard the old test button label.

(b)Fill the date (month and year) in the space of the new test button label as necessary and apply the new test button label at the end of the test button assy.

(c)Put oxygen container (3) in position and attach one side to service rail (2).

(d)Connect electrical connectors (4) and secure excess connecting cable.

(e)Lift and engage oxygen container (3) to service rail (2).

R (f)Make sure that there is a clearance of 1,5 mm to 2,0 mm at each
R side of the oxygen container door.
R If necessary, release clamping block (9) reposition oxygen container
R and secure clamping block (9).

(g)Install mounting seals (1) into service rails (2) using pulley assembly P/N 98A25207503000.

NOTE : Use roller along mounting seals (1) in both directions. Make

sure that the joints of mounting seals (1) do not align with the joints between the panels.

(2)Installation of utility area ceiling panel-mounted emergency oxygen containers.
(a)Remove and discard the old test button label.
(b)Fill the date (month and year) in the space of the new test button label as necessary and apply the new test button label at the end of the test button assy.
(c)Put the oxygen container (3) on the brackets of the ceiling panel and attach it with screws (6) and washers (7).
(d)Connect electrical connectors (4) and secure cable ties.
(e)Locate panel and secure quick-release fasteners (Ref. 25-23-13, P. Block 401).

(3)Installation of lavatory-mounted emergency oxygen containers.
(a)Remove and discard the old test button label.
(b)Fill the date (month and year) in the space of the new test button label as necessary and apply the new test button label at the end of the test button assy.
(c)Put the oxygen container (3) on the brackets of the lavatory ceiling service panel and attach it with screws (6) and washers(7).
(d)Connect the electrical connectors (4) and secure cable ties.
(e)Install the lavatory ceiling service panel with screws (5).

(4)Installation of door frame lining-mounted emergency oxygen containers.
(a)Remove and discard the old test button label.
(b)Fill the date (month and year) in the space of the new test button label as necessary and apply the new test button label at the end of the test button assy.
(c)Put the oxygen container (3) in position and make certain that the door-hinge is at the lower side of the container (3).
(d)Install the oxygen container (3) on the brackets with screws (6) and washers (7).
(e)Connect electrical connectors (4) and secure cable ties.
(f)Install the appropriate panel (Ref. 25-23-41, P. Block 401).

(5)Installation of Lavatory A-mounted emergency oxygen container.
(a)Remove and discard the old test button label.
(b)Fill the date (month and year) in the space of the new test button label as necessary and apply the new test button label at the end of the test button assy.
(c)Put the oxygen container (3) in position and make certain that the door-hinge is at the lower side of the container (3).
(d)Install the oxygen container (3) on the brackets with screws (6) and washers (7).
(e)Connect electrical connectors (4) and secure cable ties.
(f)Locate oxygen container cover (8) and attach it with screws (5).

**ON A/C ALL

D. Test
(1)Carry out an operational test (Ref. 35-21-00, P. Block 501).

E. Close-Up
(1)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.

EMERGENCY OXYGEN GENERATOR - REMOVAL/INSTALLATION

WARNING : OILS AND GREASES PRESENT A FIRE HAZARD WHEN IN CONTACT WITH OXYGEN, THEREFORE ALL TOOLS MUST BE CLEAN.

WARNING : A RECENTLY EXPENDED OXYGEN GENERATOR WILL BE HOT AND SHOULD BE ALLOWED TO COOL FOR ONE HOUR BEFORE REMOVAL.

WARNING : MAKE SURE THAT YOU OBEY THE MANUFACTURER'S INSTRUCTIONS AND NATIONAL HAZARDOUS MATERIAL REGULATIONS WHEN YOU MOVE OR KEEP THIS EQUIPMENT IN STORAGE:

R - CHEMICAL OXYGEN GENERATORS
- PROTECTIVE BREATHING EQUIPMENT
- FIXED AND PORTABLE OXYGEN CYLINDERS.

SPECIAL PRECAUTIONS ARE NECESSARY FOR THIS EQUIPMENT.

CAUTION : AVOID UNINTENTIONAL PULL ON LANYARDS AS THE REMOVAL OF THE PULL PIN FROM UNUSED GENERATORS WILL START OXYGEN FLOW WHICH CANNOT BE STOPPED.

1. Reason for the Job

A. Replacement of emergency oxygen generators.

2. Equipment and Materials

ITEM	DESIGNATION
A. 995000	Tool - Manual Release

Referenced Procedure

- 35-21-00, P. Block 301	Passenger Oxygen System
- 35-21-00, P. Block 501	Passenger Oxygen System

3. Procedure

A. Job Set-Up

(1)Open safety and tag the following circuit breakers:

PANEL	SERVICE	IDENT.	LOCATION
22VU	PASSENGER OXYGEN/CTL & WARN	1WR	H24
22VU	PASSENGER OXYGEN/ACTUATION	2WR	H25
22VU	PASSENGER OXYGEN/ACTUATION	3WR	H26
22VU	PASSENGER OXYGEN/ACTUATIOM	4WR	H27
22VU	PASSENGER OXYGEN/ACTUATION	5WR	H28

(2)Open emergency oxygen container door using manual release tool P/N 995000.

CAUTION : AFTER REMOVAL OF THE EMERGENCY OXYGEN GENERATOR, MAKE SURE THAT THE SAFTY RING OR THE SAFTY PIN ARE INSTALLED IF YOU MUST:
- MOVE THE EMERGENCY OXYGEN GENERATORS TO A DIFFERENT LOCATION, OR
- PUT THEM INTO STORAGE.

R **ON A/C 001-100,

B. Removal (Ref. Fig. 401)
CAUTION : AVOID UNINTENTIONAL PULL ON LANYARDS (2).
(1)Disconnect the masks (1) from the lanyards (2).
(2)Disconnect the ball-retainer (3) from the holder (4) in the container.
(3)Release the clamp (5) and remove the generator (6).
(4)Carefully slide supply hoses (7) from manifold (8) and remove masks (1).

R **ON A/C 101-200,

R B. Removal (Ref. Fig. 402)
R CAUTION : AVOID UNINTENTIONAL PULL ON THE LANYARDS (6).
R (1)Disconnect the oxygen masks (5):
R (a)Disconnect the clips (7) from the lanyards (6).
R NOTE : Do not disconnect the lanyards (6) from the oxygen generator
R pull-pin (11).
R (b)Push a thin bladed tool between the supply hoses (4) and the outlet
R manifold (3).
R (c)Carefully pull the supply hoses (4) from the manifold (3).
R (d)Remove the oxygen masks (5).
R (2)Remove the oxygen generator (2):
R (a)For type 1 and 2 containers:
R 1 Release the clamp(s) (1) and remove the oxygen generator (2).
R (b)For a type 3 container:
R 1 Pull the deployment cradle (13) to separate the loop strip (14)
R from the hook fastener on the container.
R 2 Release the clamp (1) and remove the oxygen generator (2).

R **ON A/C ALL

CAUTION : IF THERE IS A YELLOW WARNING FLAG INSTALLED ON THE EMERGENCY OXYGEN GENERATOR A SAFTY RING OR A SAFTY PIN IS INSTALLED ON THE EMERGENCY OXYGEN GENERATOR. THIS SAFTY RING OR SAFTY PIN MUST BE REMOVED BEFOR THE EMERGENCY OXYGEN GENERATOR IS INSTALLED IN THE EMERGENCY OXYGEN CONTAINER ON THE AIRCRAFT.

R **ON A/C 001-100,

C. Installation (Ref. Fig. 401)
CAUTION : AVOID UNINTENTIONAL PULL ON LANYARDS (2).
(1)Slide supply hoses (7) fully over manifold outlets (8).
NOTE : To facilitate installation, dip the end of supply tubing into clean water.
(2)Install the generator (6) in container, make sure the pin engages in the clamp (5) and tighten the clamp.
(3)Connect the ball-retainer (3) into the holder (4) in the container.

(4)Connect lanyards (2) to the oxygen masks (1).
NOTE : Visually inspect generator and pull-pin for correct position. Identification plate and outlet valve must be visible and facing outward. The pull-pin must be pointed outward.
(5)The actuator end with the pull pin and lanyards must point in the same direction as the latch assy wire routing.
(6)Place oxygen mask in emergency oxygen container (Ref. 35-21-00, P. Block 301) and close the door.

R **ON A/C 101-200,

R C. Installation (Ref. Fig. 402)

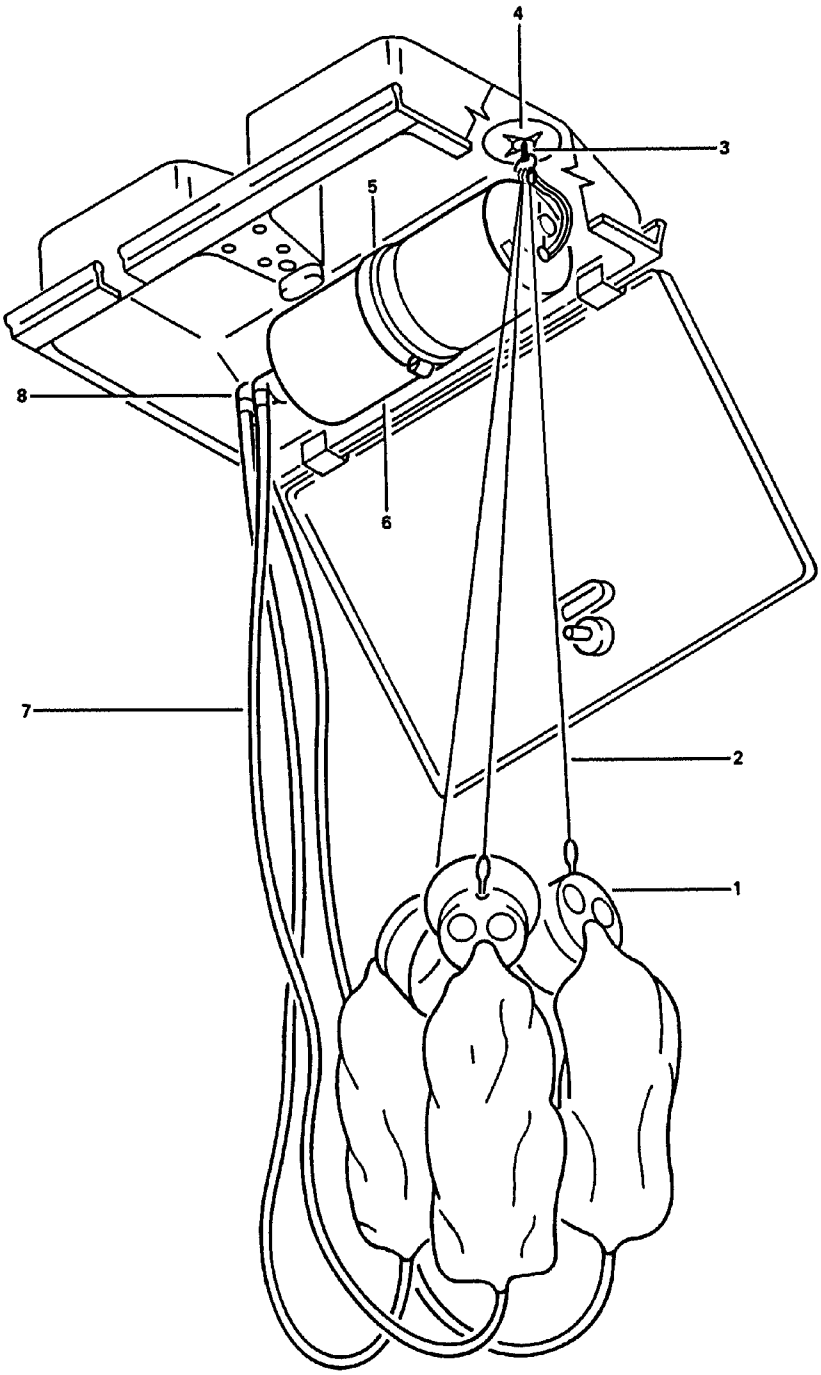
R CAUTION : AVOID UNINTENTIONAL PULL ON THE LANYARDS (6).
R (1)Install the oxygen generator (2):
R (a)Remove and discard the old test button label (8).
R (b)Enter the date (month and year) in the space of the new test button label (8) as necessary.
R (c)Apply the new test button label (8) underneath the test lever (12).
R (d)Put the clamp (1) in position.
R (e)For a type 1 container:
R 1 Put the oxygen generator (2) in position in the container.
R 2 Remove the safety pin (9) if installed.
R NOTE : The oxygen generator pull-pin ring (11) and the outlet manifold (3) must point outward from the container.
R 3 Tighten the clamp(s) (1).
R (f)For a type 2 container:
R 1 Put the oxygen generator (1) in position in the container.
R 2 Slide the generator end with the pull-pin (11) firmly into the lanyard pad (10).
R 3 Remove the safety pin (9) if installed.
R NOTE : The oxygen generator pull-pin ring (11) and the outlet manifold (3) must point outward from the container.
R 4 Tighten the clamp(s) (1).
R (g)For a type 3 container:
R 1 Put the oxygen generator (2) in position in the container.
R 2 Slide the generator end with the pull-pin (11) firmly into the lanyard pad (10).
R 3 Remove the safety pin (9) if installed.
R NOTE : The oxygen generator pull-pin ring (11) and the outlet manifold (3) must point outward from the container.
R 4 Tighten the clamp (1).
R 5 Press the loop strip (14) on the deployment cradle (13) to the hook fastener on the container.
R (2)Install the oxygen masks (5):
R (a)Carefully install the oxygen supply hoses (4) on the outlet manifold (3).
R NOTE : To make the installation of the supply hoses easier, put the ends of the supply hoses into clean distilled water.
R (b)Connect the clips (7) to the lanyards (6).
R (c)Place the oxygen masks (5) in the emergency oxygen container

(Ref. 35-21-00, P. Block 301) and close the access door.

**ON A/C ALL

D. Carry out an operational test (Ref. 35-21-00, P. Block 501).

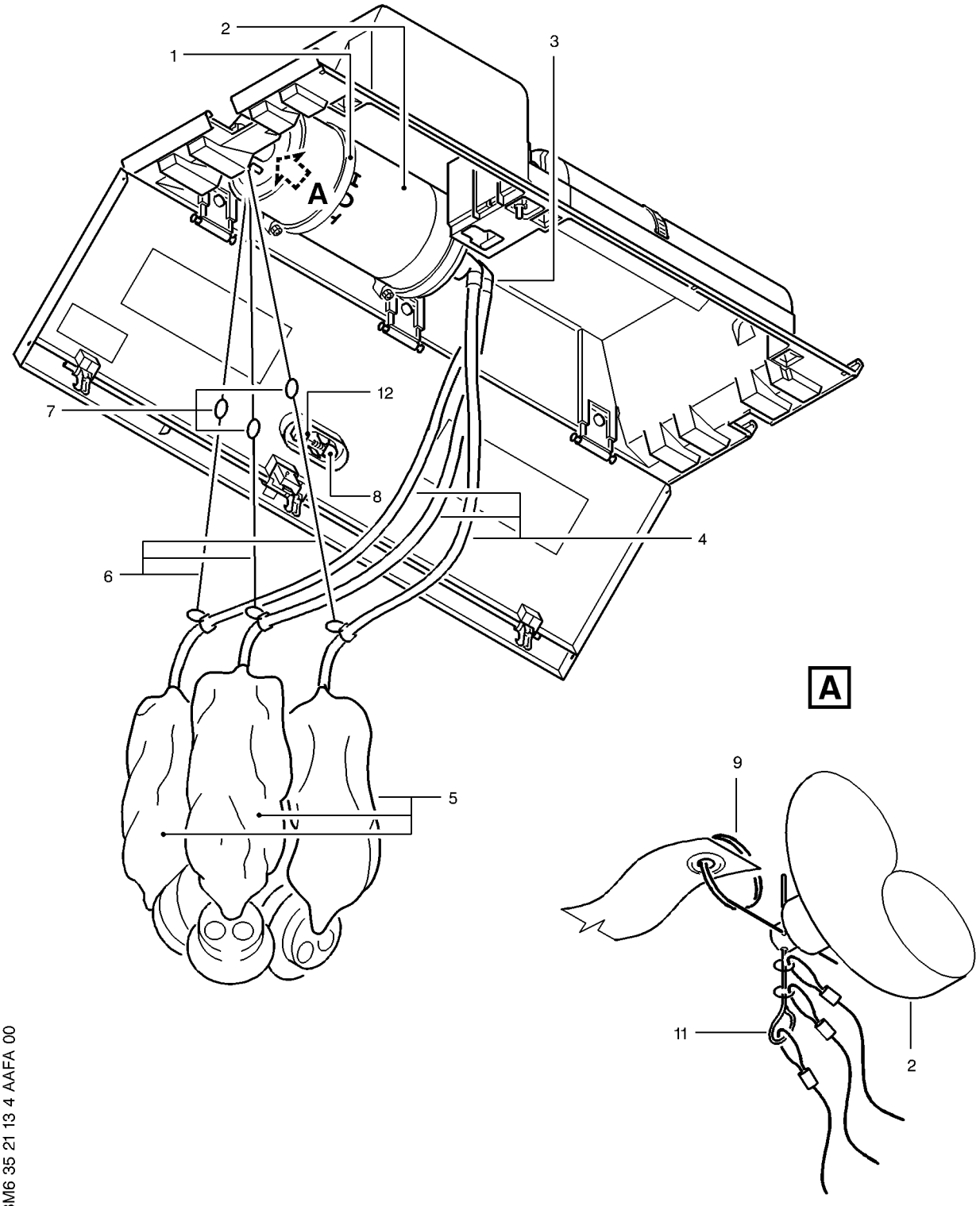
E. Close-Up
(1)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.



NOTE: 3 MASK CONTAINER SHOWN.

BM6 35 21 13 4 AAB0 01

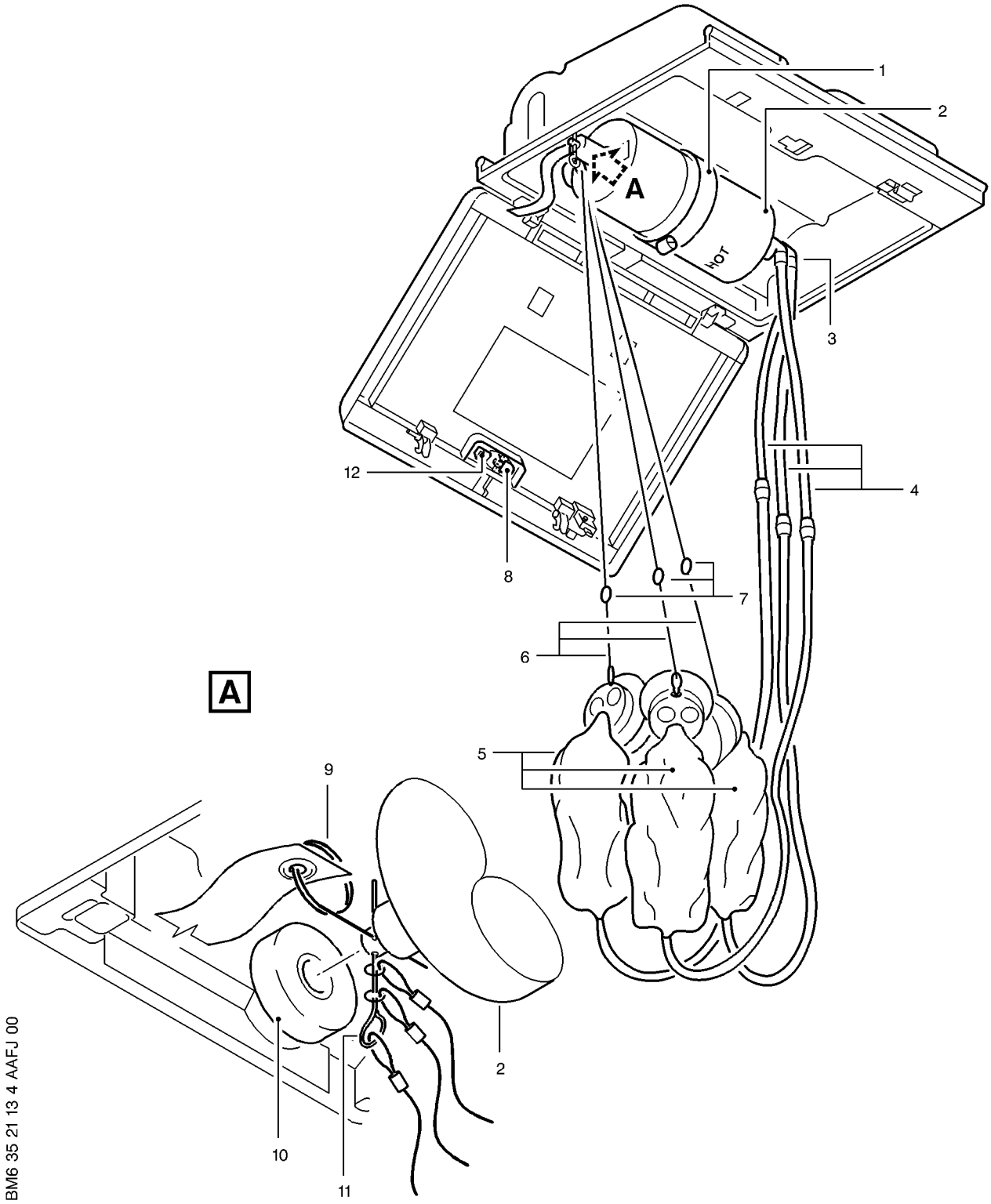
Emergency Oxygen Container
Figure 401



BM6 35 21 13 4 AAFA 00

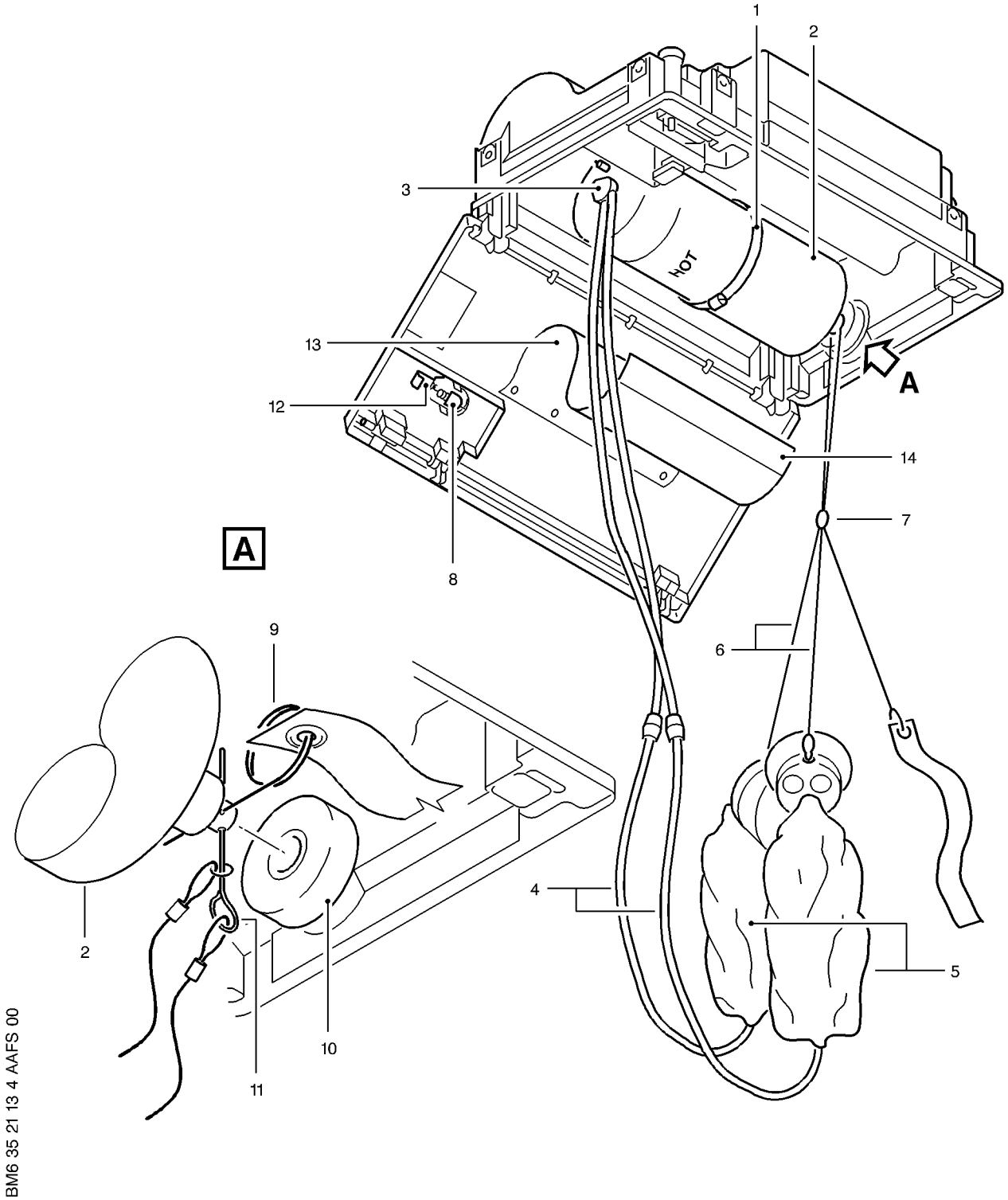
Emergency Oxygen Container, Type 1 Container
Figure 402

R



Emergency Oxygen Container, Type 2 Container
Figure 402

R



Emergency Oxygen Container, Type 3 Container
Figure 402

R

ALTITUDE SWITCH - REMOVAL/INSTALLATION

1. Equipment and Materials

ITEM	DESIGNATION
A. 98A35207599000	Adapter-Hose, Altitude Switch
B.	Electrical Ground Power Unit - 3-Phase, 115/200 V, 400 Hz
C.	Vacuum Source and Altitude Indicator

Referenced Procedure

- 24-41-00, P. Block 301	AC External Power Control
- 25-13-21, P. Block 401	Upper Sidewall Panels

2. Procedure

A. Job Set-Up

(1)Open, safety and tag the following circuit breaker:

PANEL	SERVICE	IDENT.	LOCATION
22VU	PASSENGER OXYGEN CTL & WARN	1WR	H24

(2)Remove upper sidewall panel in the area of frame 10 at LH side of flight compartment (Ref. 25-13-21, P. Block 401).

B. Removal (Ref. Fig. 401)

(1)Disconnect electrical connector (1) from altitude switch (2).

R (2)Remove screws (3), washers (4) and altitude switch (2) from bracket (5).

C. Installation (Ref. Fig. 401)

(1)Connect electrical connector (1) to altitude switch (2).

(2)Carry out test para. D.

NOTE : Hose-adapter (P/N98A35207599000) can not be connected when the altidude switch (2) is attached to its bracket (5).

(3)Position altitude switch (2) on bracket (5) and secure with screws (3) and washers (4).

D. Test

(1)Connect electrical ground power unit and energize aircraft electrical network (Ref. 24-41-00, P. Block 301).

(2)Make sure that electronics racks ventilation is correct.

(3)Close the following circuit breaker:

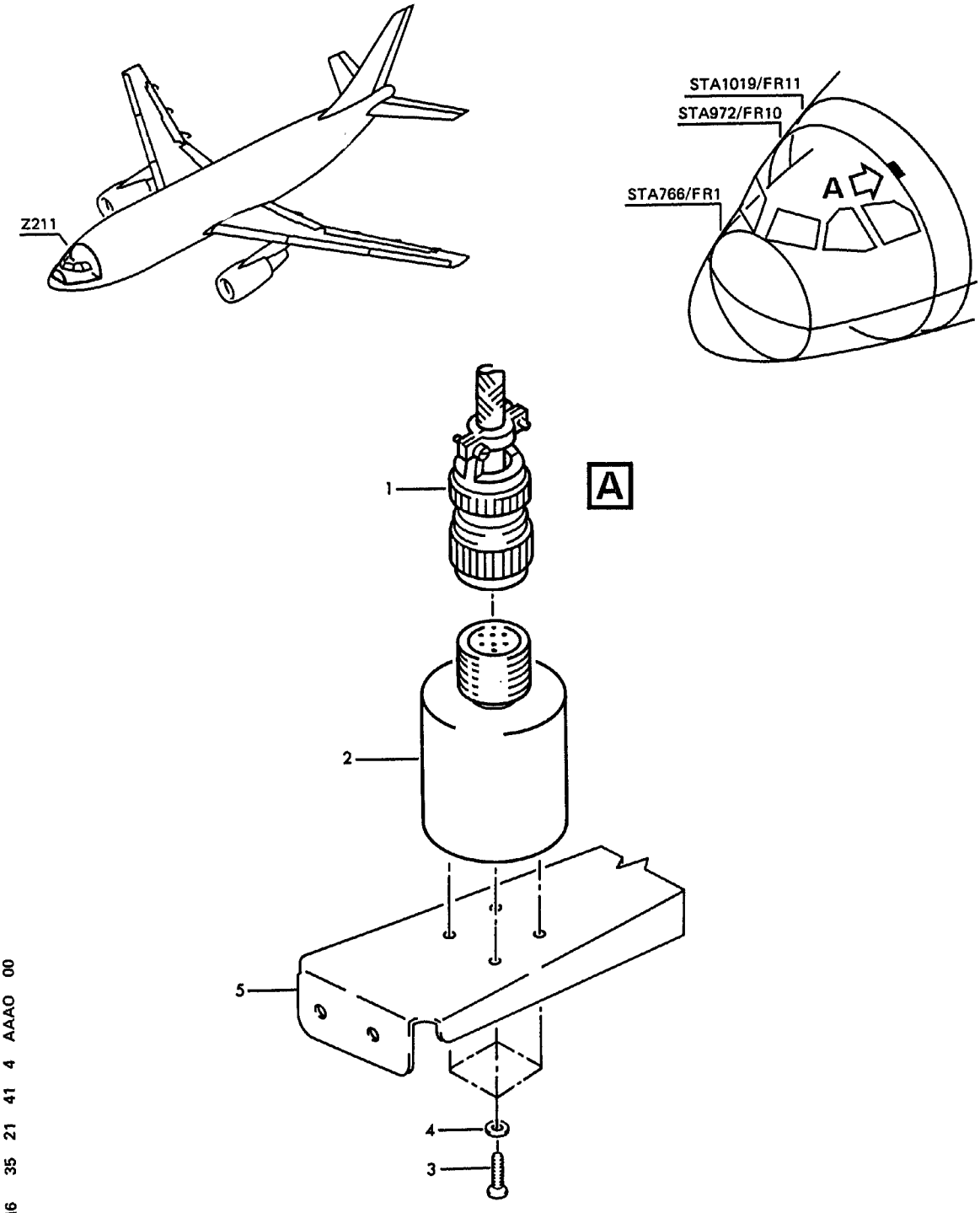
PANEL	SERVICE	IDENT.	LOCATION
22VU	PASSENGER OXYGEN CTL & WARN	1WR	H24

(4)Make certain that the following circuit breakers are open:

PANEL	SERVICE	IDENT.	LOCATION
22VU	PASSENGER OXYGEN ACTUATION	2WR	H25
22VU	PASSENGER OXYGEN ACTUATION	3WR	H26
22VU	PASSENGER OXYGEN ACTUATION	4WR	H27
22VU	PASSENGER OXYGEN ACTUATION	5WR	H28

(5)Connect vacuum source to the altitude switch **16WR** using hose-adapter **(P/N98A35207599000)**.
(6)Slowly increase altitude to 14000 ft.
On panel **472VU** the indicator light **12WR TMR NOT RESET** shall come on after 30 seconds at 14000 (+0 -500) ft.
(7)Slowly decrease altitude to zero.
(8)Press push button **RESET** on maintenance panel.
The **TMR NOT RESET** light extinguishes.
(9)Remove hose-adapter and vacuum source from altitude switch.
Do not disconnect electrical plug.
R (10)Close the circuit breakers opened in step (4).

E. Close-Up
(1)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.
(2)Install upper sidewall panel (Ref. 25-13-21, P. Block 401).
(3)De-energize aircraft electrical network and disconnect electrical power unit (Ref. 24-41-00, P. Block 301).
(Ref. Fig. 401)



Altitude Switch
Figure 401

PORTABLE OXYGEN - DESCRIPTION AND OPERATION

1. General

Portable oxygen equipment is installed in the flight compartment and in various locations in the passenger compartment. The system comprises:

- Flight Crew Portable Oxygen
- Cabin Attendants Portable Oxygen

2. Description

A. Flight Crew Portable Oxygen

The intended use is to provide oxygen for one crew member when fighting a fire and against smoke and noxious gas, or to provide emergency oxygen for one crew member in case of failure of the fixed oxygen system.

B. Cabin Attendants Portable Oxygen

The intended use is to provide oxygen for attendants when fighting a fire and against smoke and noxious gas, or to provide first aid oxygen, where required, following an emergency descent due to loss of cabin pressurization.

FLIGHT CREW PORTABLE OXYGEN - DESCRIPTION AND OPERATION

1. General

A. Purpose and Functions

The flight crew portable system ensures the protection of a flight crew member occupying a seat in the flight compartment in the following
R conditions :
- smoke or noxious gas emissions
- possibly, cabin pressure altitude loss.

2. Description

A. Oxygen Source

R The oxygen source consists of a high pressure oxygen cylinder. This cylinder is located from the rear of the First Officer's console to the bottom of the coat stowage.
(Ref. Fig. 001)
It is maintained in its housing by friction on the flexible walls provided for that purpose.
The cylinder is equipped with a head including the following components :
(Ref. Fig. 002)

(1)High pressure stage

(a)A direct reading pressure gauge indicating the cylinder pressure

(b)A high pressure relief valve, with rupture of a disc in the event of excessive pressure, between 172.4 and 207 bars /2700 and 3000 psig) which would result from an abnormal rise in temperature. The oxygen released is dissipated in the environment.

(c)A rotating type ON/OFF valve which controls the oxygen flow entering the high pressure chamber of the pressure regulation mechanism.

(d)A charging valve directly connected to the high pressure chamber of the pressure regulation mechanism and which enables the cylinder to be filled through the ON/OFF valve with a controlled flow. The charging
R rate must not exceed 300 psi/min.

(2)Pressure control mechanism

R A pressure control mechanism which ensures pressure regulation to a
R pressure between 2.4 and 5.86 bars (35 and 85 psig).

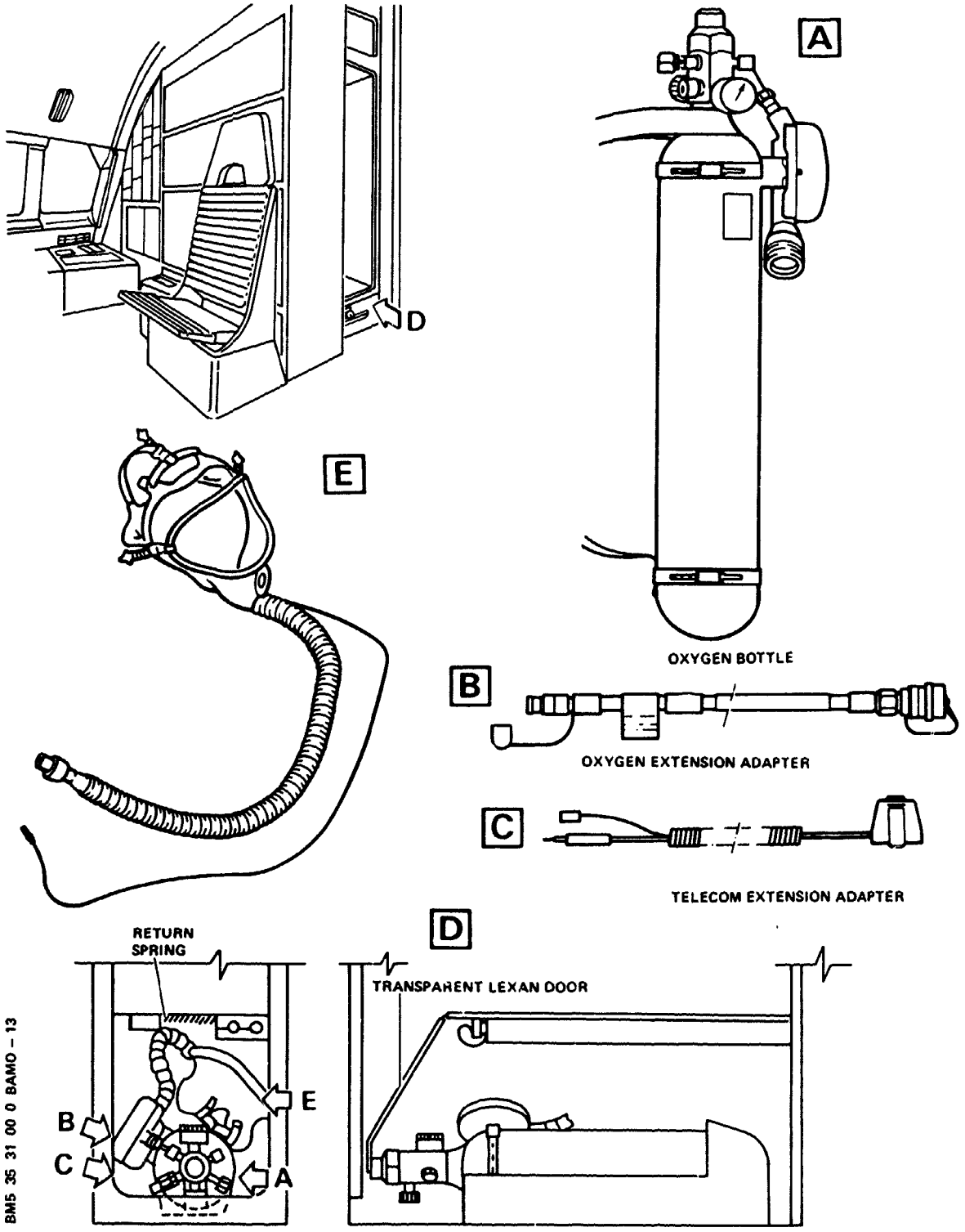
(3)Low pressure stage

(a)A low pressure relief valve with a check valve calibrated to limit all excessive pressure between 6.2 bars (90 psig) - begining of opening - and 9.3 bars (135 psig) fully open.

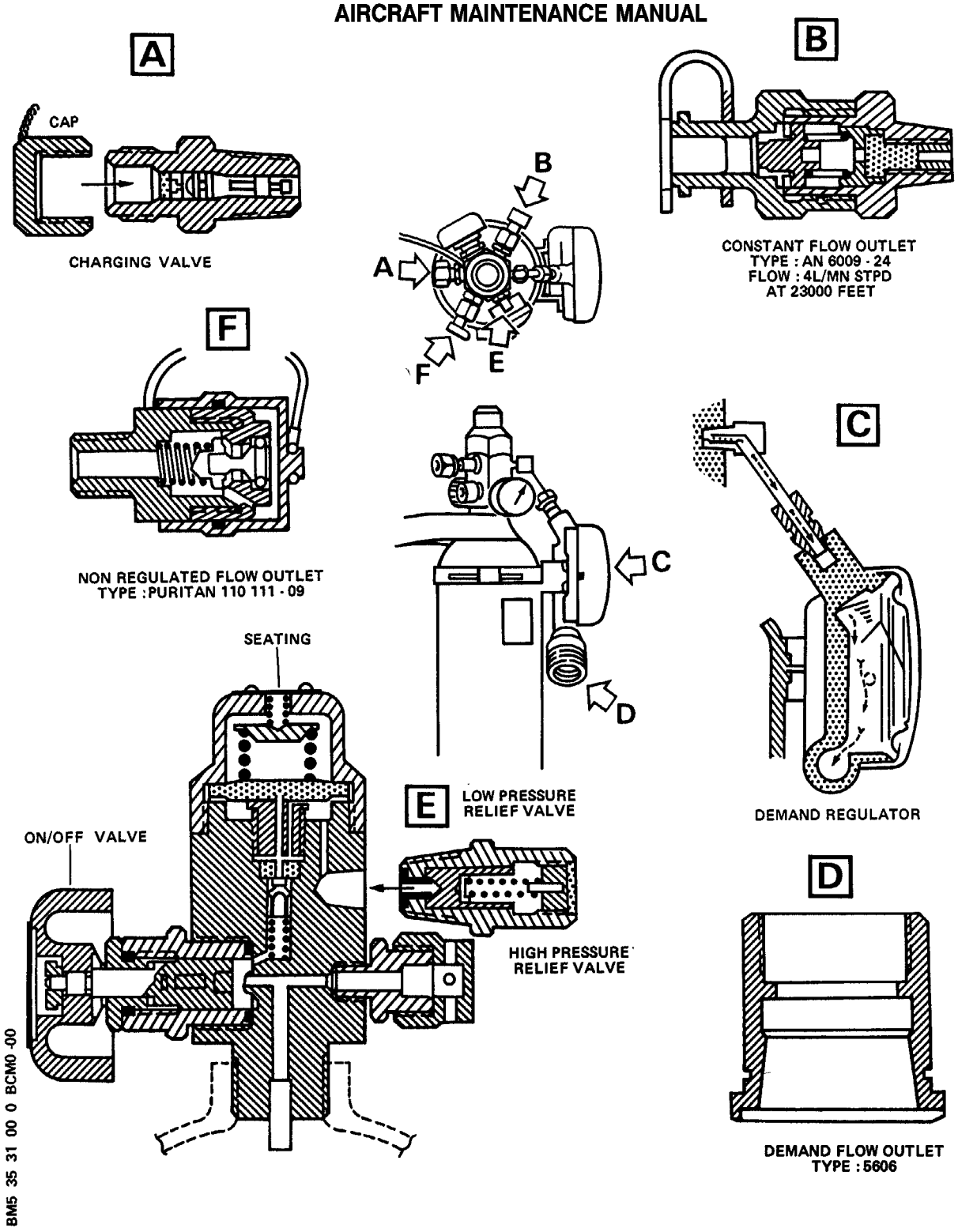
(b)A demand regulator enabling an oxygen flow generated by the negative pressure in the oxygen mask during the inhalation phase to be obtained from a standard supply point.
The adjustment limits are as follows :

. for a 35 psig supply pressure, a flow of 20 liters (Normal Temperature, Pressure Dry (21°C - 1013 mb) is obtained for
R a 17.8 minutes H20 negative pressure.

. for a 85 psig supply pressure, a flow of 125 liters (normal Tem-
R perature, Pressure Dry (21°C - 1013 mb) is obtained for a
R 50 minutes H20 negative pressure.



Oxygen Portable Equipment
Figure 001



Portable Oxygen Cylinder Head
Figure 002

(c)A non regulated flow outlet to be used for a mask with built-in demand regulator
(d)A constant flow outlet, not to be used by the flight crew

B. Full Face Oxygen Mask
The mask is of the full face type : it covers the nose, the mouth and the eyes. It is equipped with an inhalation valve, an exhalation valve and a high-level carbon microphone.
The mask is normally connected to the cylinder.

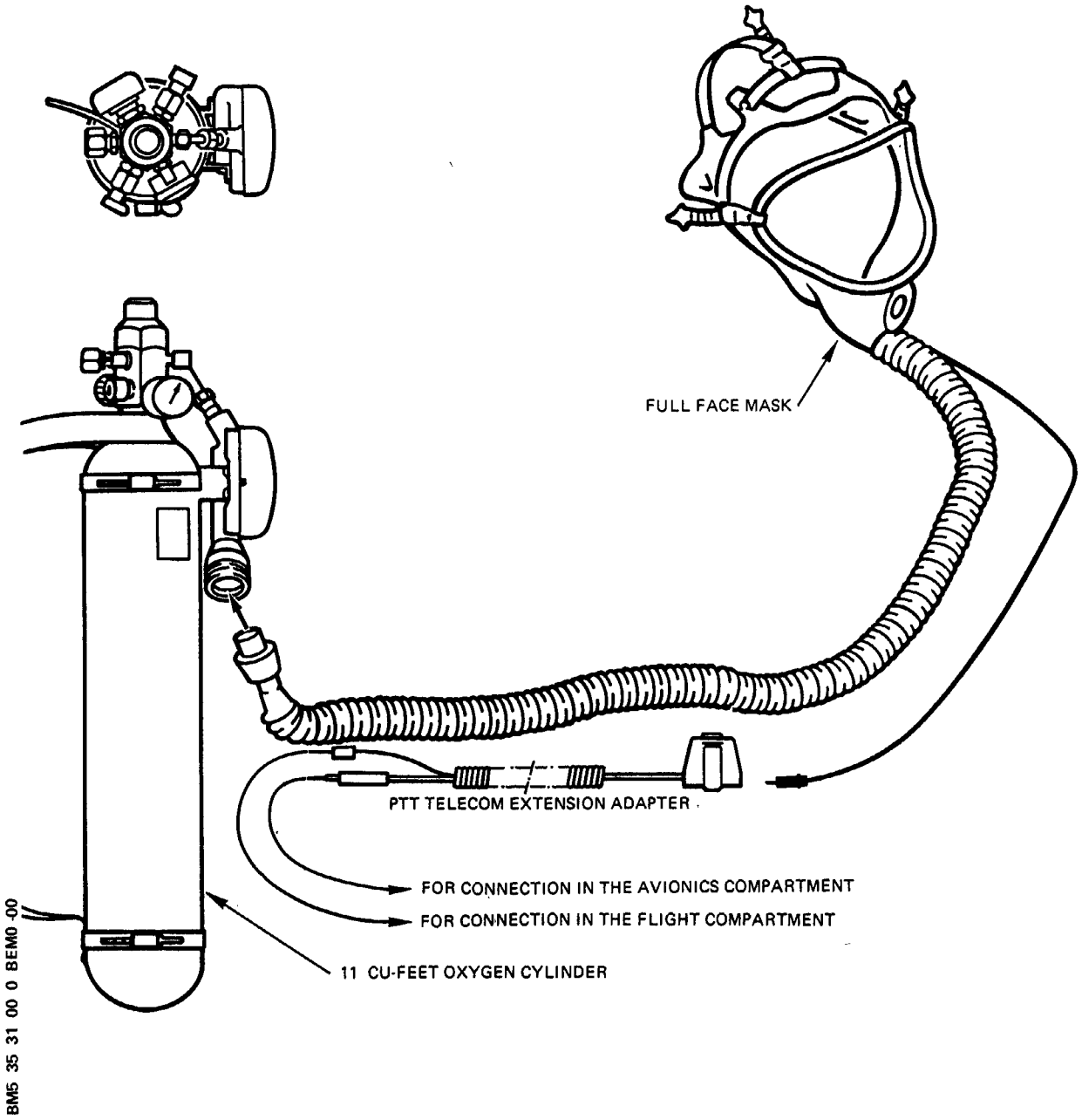
3. Utilization

A. Protection against smoke and gas for the flight crew member who has to move in the cabin or in the avionics compartment.
(Ref. Fig. 003)
(Ref. Fig. 004)
(1)The full face mask is connected to the cylinder regulator
The communication adaptor extension is connected to the mask cable.
This overall configuration corresponds to the overall storage configuration on the A/C.
The user of this unit can communicate with the other crew members by connecting the end of the communication adapter/extension to the various receptacles provided in the flight compartment and the avionics compartment.
In this configuration, the crew member uses a demand-type supply, 100 % pure oxygen, without safety overpressure.

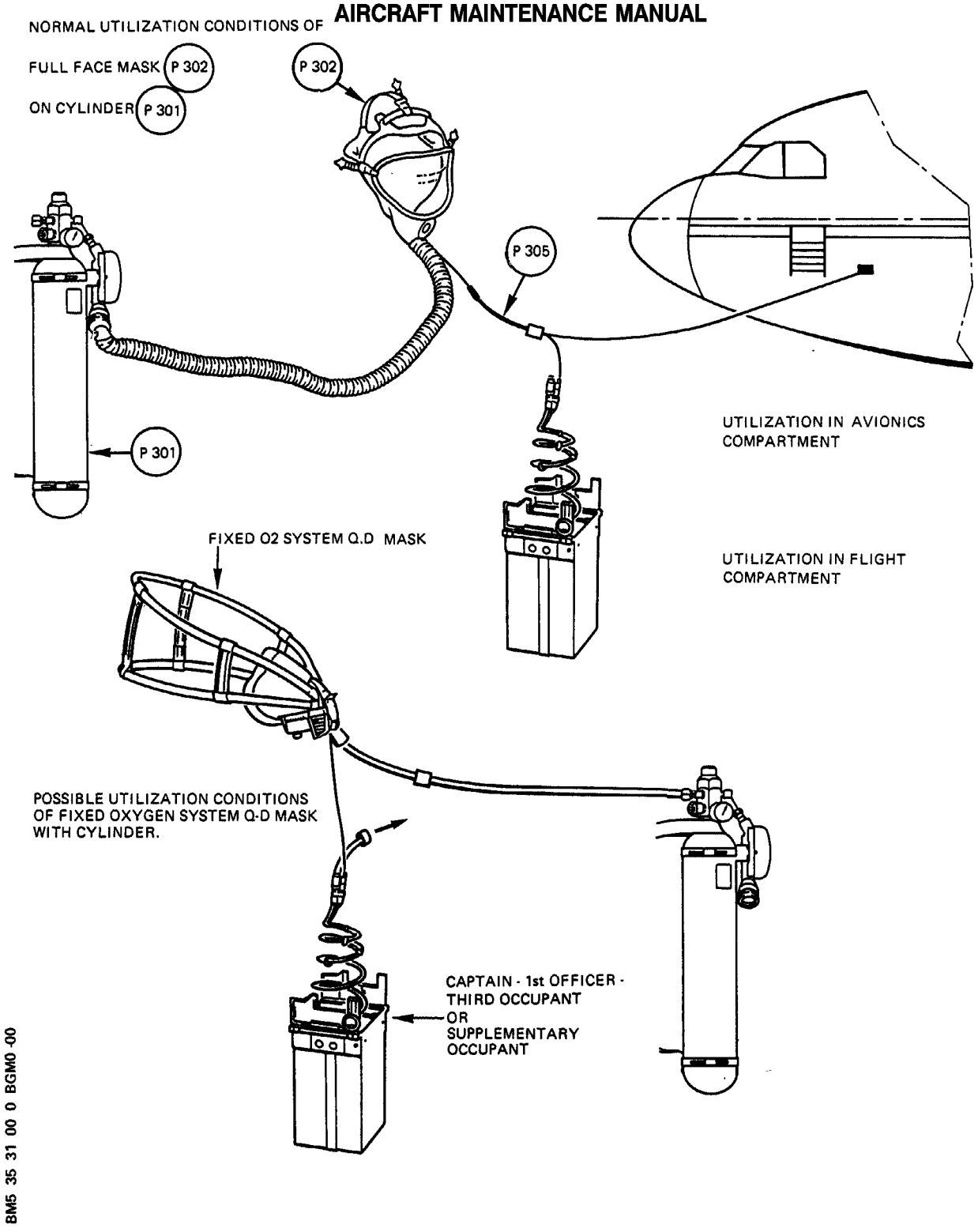
R

B. Protection in the Event of Loss of Cabin Pressure
(1)Of a flight crew member with his quick-donning mask failed. The flight crew member uses the portable unit as per the configuration described in paragraph A. above.
(Ref. Fig. 003)
(2)Of a pilot in the event of total failure of the flight crew fixed oxygen (Ref. Fig. 005). The pilot's quick-donning mask is disconnected from the aircraft fixed system (O2 connection only) then connected to the non-regulated flow port of the cylinder via the oxygen adapter/extension permanently stowed in the housing near the portable oxygen cylinder.
In this configuration, the crew member uses a demand-type supply with the following manual controls :
- 100 % pure oxygen at any altitude or air/oxygen dilution and 100 % pure oxygen automatically obtained above 35000 feet.
- permanent or momentary overpressure.
The unit capability enables the user to be supplied in the following conditions :
R . 10 minutes of descent with 100 % oxygen
R . 90 minutes of flight continuation between 10000 and 15000 feet.

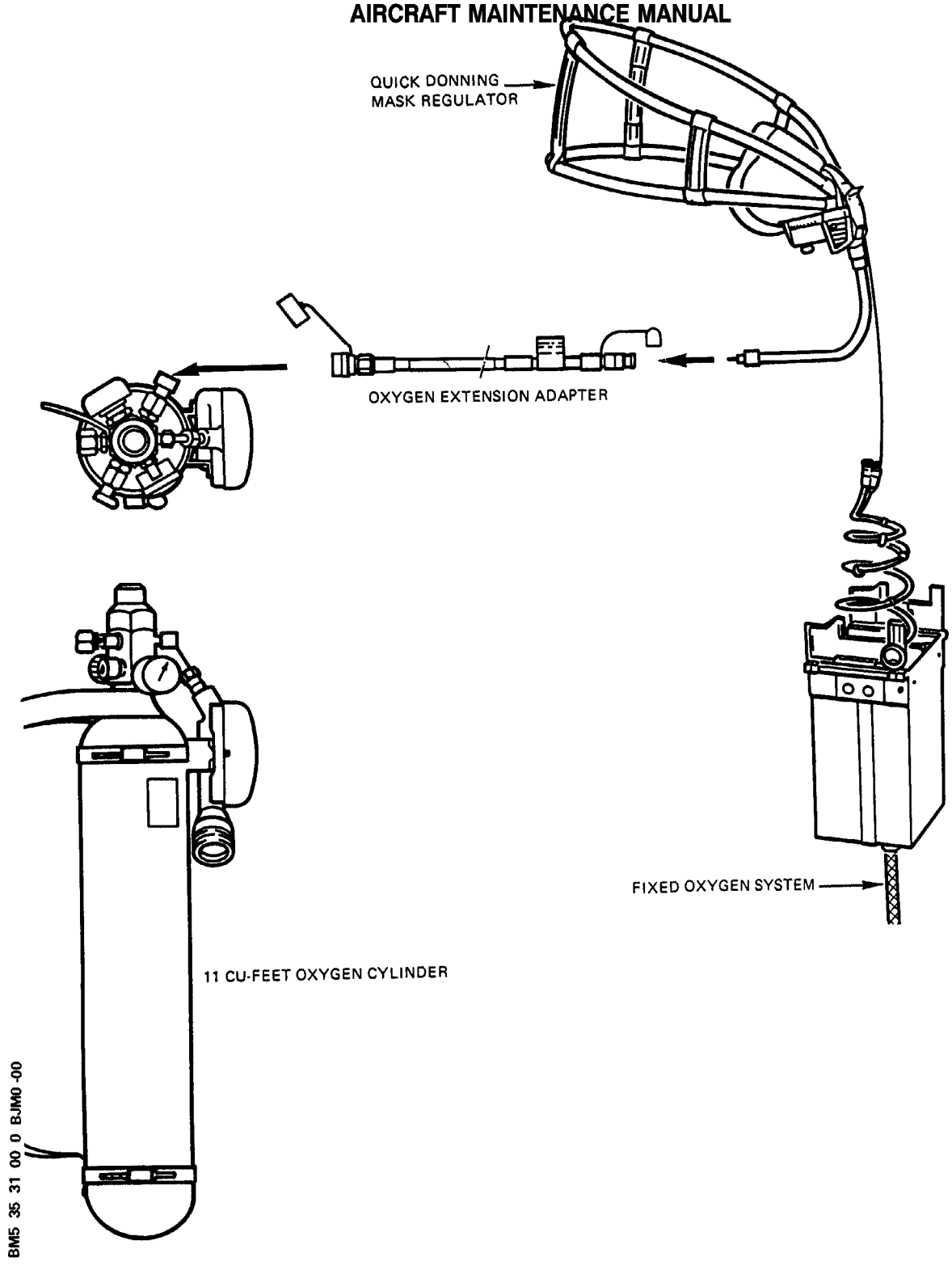
C. Protection with failed full face oxygen mask
Protection, further to smoke emission, of a flight crew member who finds the full face mask of the portable unit failed.
In this case, the flight crew member uses his own quick-donning mask, in the following configuration ;
- NORMAL - 100 % control on 100 % position
- overpressure control - permanent or momentary
In addition the flight crew member concerned will use the smoke goggles.


FULL FACE MASK
PTT TELECOM EXTENSION ADAPTER
FOR CONNECTION IN THE AVIONICS COMPARTMENT
FOR CONNECTION IN THE FLIGHT COMPARTMENT
11 CU-FEET OXYGEN CYLINDER
BM5 35 31 00 0 BEM0 00

Normal Utilization of Full Face Demand Mask with Portable Cylinder
Figure 003


NORMAL UTILIZATION CONDITIONS OF
FULL FACE MASK P 302
ON CYLINDER P 301
P 302
P 305
P 301
UTILIZATION IN AVIONICS COMPARTMENT
FIXED O2 SYSTEM Q.D MASK
UTILIZATION IN FLIGHT COMPARTMENT
POSSIBLE UTILIZATION CONDITIONS OF FIXED OXYGEN SYSTEM Q-D MASK WITH CYLINDER.
CAPTAIN - 1st OFFICER - THIRD OCCUPANT OR SUPPLEMENTARY OCCUPANT
BM5 35 31 00 0 BGM0 00

Utilization Possibilities
Figure 004



Emergency Utilization of Quick-Donning Mask with
Portable Cylinder
Figure 005

R D. Particular Installation Conditions

- the oxygen generation compartment is installed in a zone unlikely to be damaged in the most unfavorable crash conditions
- all generation and distribution system rigid pipes are made from stainless steel, 0.71 mm thick.

They also comprise type unions with no moving components and affording longitudinal guidance. Connection between pipes and between pipes and equipment is carried out by the addition on the flare of a copper seal ensuring perfect sealing and permitting successive disassemblies without deterioration of the aircraft system. The seals are of expendable type and must be replaced after each disassembly operation. In certain zones, the lines are protected by removable split sleeves (adjacent to electrical looms) or by light-alloy metallic deflectors (in the vicinity of the flight control cables).

- The pipe supports are of the following type :
  - clamp without bonding
- All flexible hoses on the fixed lines are of high pressure type with teflon core and stainless steel metal braiding
- The flexible hoses upstream of the quick-donning mask supply valves are of the low pressure type and made from synthetic rubber covered by a nomex braiding.
- Additional smoke goggles are located in a housing adjacent to each mask stowage box in the flight compartment.

R FLIGHT CREW PORTABLE OXYGEN - DESCRIPTION AND OPERATION

R 1. General

The flight crew portable oxygen system ensures the protection of flight crew members in the following conditions :
- smoke or noxious gas emissions
- cabin pressure loss.

The system consists of protective breathing equipment which includes a hood with an oxygen generator. The protective breathing equipment is stored in a sealed vacuum bag within a container.

2. Description

A. Hood

(Ref. Fig. 001)

The hood consists of three primary parts :
- the internal hood
- the external hood
- the over hood.

(1) The internal hood has two compartments separated by a membrane. One compartment is for the head of the wearer, the other one is used as a lung. The separation membrane is made of self-extinguishing material. It has a collar seal at the level of the wearer's neck.

(2) The external hood is made of heat-resistant materials and has a sealed visor, a pressure control valve, a speaking diaphragm, a carbon dioxide absorption system and an annular oxygen container which is equipped with an automatic starter.

(3) The over hood serves as a protection against fire. It also covers and holds the annular container at the level of the external hood.

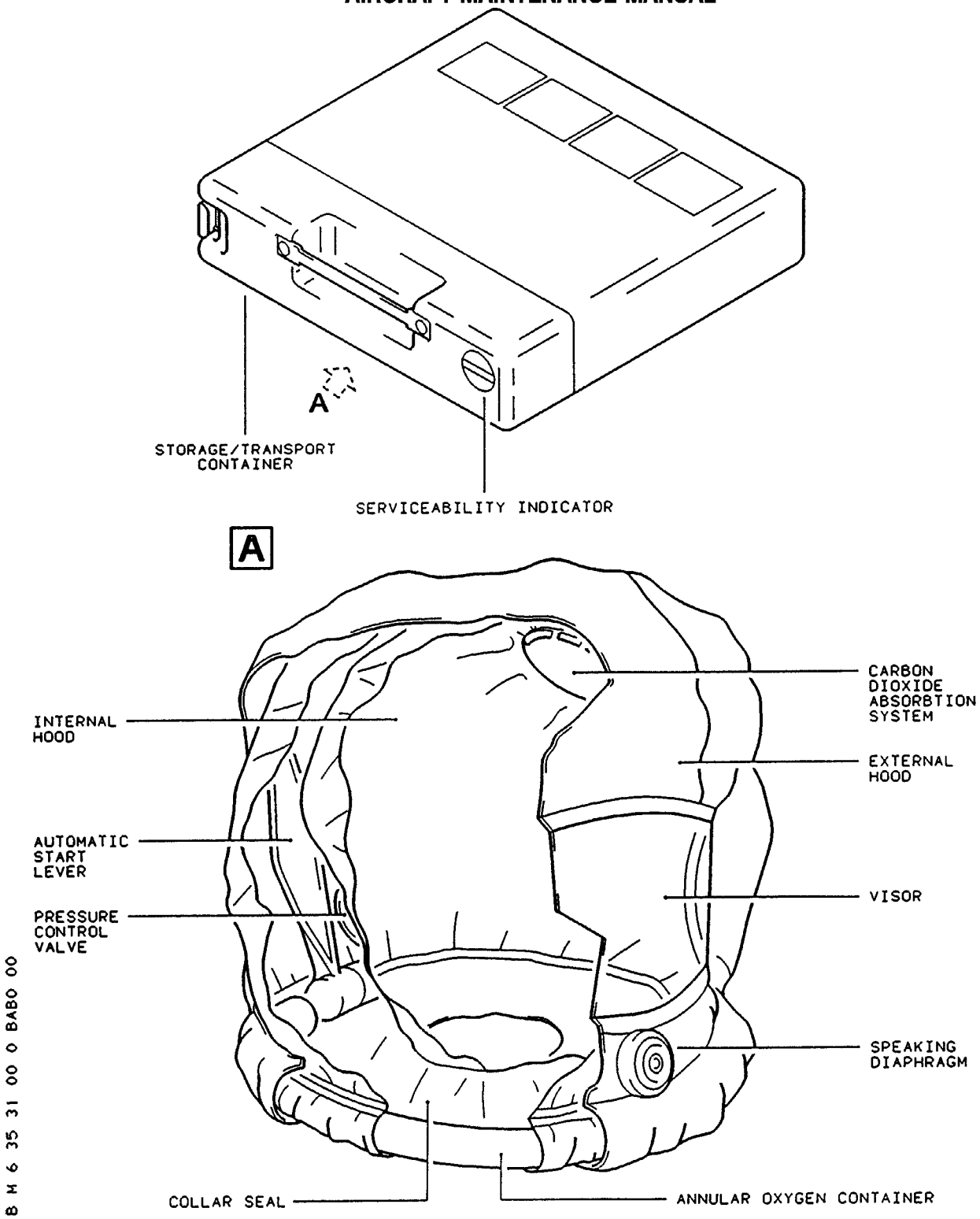
B. Container

The protective breathing equipment is packed into an aluminized vacuum-sealed bag which is stored within a storage/transport container. This container is equipped with a serviceability indicator. If an oxygen leak occurs, the serviceability indicator will turn red.

3. Operation

A. Protective Breathing Equipment

In the event of fire, smoke or noxious gas emission, a flight crew member uses the protective breathing equipment. During the donning sequence, the automatic starter actuates and releases oxygen into the hood. The pressure regulating valve prevents overpressure in the hood. The oxygen container is designed to deliver oxygen for a minimum of 15 minutes.



Protective Breathing Equipment
Figure 001

1. Operational Test

A. Check of the Smoke Mask Operation
Connect the smoke mask to the portable oxygen cylinder.
Open the cylinder, and perform a breathing test.
Close the cylinder.
Disconnect the mask.

R NOTE : Check of the smoke mask operation is applicable to both the flight
R crew and cabin attendant smoke masks.

B. Check of the Smoke Mask Microphone Operation
(1)Remove one quick-donning mask from its stowage box and disconnect the radio connector.
(2)Connect the telecom extension adapter to the portable smoke mask and to one of the full-face quick-donning masks.
(3)On audio control panel :
- place **RADIO/INTER** switch in **INTER** position, speak into microphone and check reception at boomset.
(4)Disconnect the telecom extension adapter from the portable smoke mask and from the full-face quick-donning mask.
(5)Connect the radio connector of the quick-donning mask and store mask in its stowage box.

PORTABLE OXYGEN CYLINDER - INSPECTION/CHECK

WARNING : PERSONNEL IN CHARGE OF CARRYING OUT THE ACTIONS BELOW MUST BE AWARE OF THE RISKS INVOLVED IN HANDLING OXYGEN WHICH ENHANCES COMBUSTION IN THE PRESENCE OF FUEL AND BECOMES EXPLOSIVE IN THE PRESENCE OF HYDROCARBONS (FUELS, LUBRICANTS).

1. General Check

NOTE : The inspection/check procedure is applicable to both the flight crew and cabin attendant portable oxygen cylinders.

A. Reason for the Job

R (1)Visual inspection during scheduled maintenance and hydrostatic test of
R portable oxygen cylinders and check of LP relief-valve.

B. Procedure

(1)Job Set-Up
- (a)Remove portable oxygen cylinder from quick-release brackets.

(2)Visually inspect the cylinder.
- (a)Inspect cylinder for damage and cleanliness.
- (b)Inspect regulator for damage and cleanliness.
- (c)Inspect pressure gage for scratches on window and legibility of the scale.
- (d)Check that pressure gage registers correct pressure which is 1800 psi at 21°C (70°F).
- (e)Inspect regulator assembly for damage and secure attachment.
- (f)Inspect charging valve and relief valve for cleanliness and secure attachment and ensure that cap is in place.
- (g)Inspect demand regulator and adapter for damage and secure attachment.
- (h)Inspect carrying straps for fractures and secure attachment.
- (j)Inspect quick-release brackets for secure attachment.

(3)Close-Up
- (a)Place portable oxygen cylinder on quick-release brackets.
- (b)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.

FULL FACE SMOKE MASK - CLEANING/PAINTING

WARNING : CLEANING AGENT (MAT. NO. 11-003) IS DANGEROUS.

1. Reason for the Job

A. Cleaning during scheduled maintenance.

2. Equipment and Materials

ITEM	DESIGNATION
A. Material No. 11-003	Cleaning Agents (Ref. 20-31-00)
B. Material No. 11-005	Cleaning Agents (Ref. 20-31-00)
C. Material No. 14-002	Disinfectants (Ref. 20-31-00)
D.	Sponge or Lint-free Cloth

3. Procedure

A. Job Set-Up
  (1)Remove full face smoke mask from stowage.

B. Cleaning
  (1)Mask
    (a)Clean mask shell and harness with soap solution (Mat. No. 11-005) and rinse with clean water.
      NOTE : This operation must be carefully performed to avoid spillage on regulator and microphone assembly, if installed.
    (b)Wipe with sponge or lint-free cloth.
    (c)Sterilize mask with aseptic spray (Mat. No. 14-002).
    (d)If required, dry mask with dry, oil-free air.
  (2)Regulator
    WARNING : CLEANING AGENT (MAT. NO. 11-003) IS DANGEROUS.
    (a)Clean all parts, except those made from elastomer, with cleaning agent (Mat. No. 11-003).
    (b)Clean all elastomer parts with soap solution (Mat. No. 11-005).
    (c)Dry all parts with dry, oil-free air.

C. Close-Up
  (1)Place mask back into stowage.
  (2)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.

CABIN ATTENDANTS PORTABLE OXYGEN - DESCRIPTION AND OPERATION

1. General

**ON A/C 001-003,

Portable oxygen equipment is installed in the passenger compartment and contains gaseous oxygen under high pressure.
The intended use is to supply oxygen to the cabin attendants or first aid oxygen, after emergency descent because of loss of cabin pressurization, during continuation of flight at flight levels where first aid oxygen is required. The system consists of portable oxygen cylinders, full-face smoke masks and continuous-flow masks.

2. Description

**ON A/C 004-100,

Portable oxygen equipment is installed in the passenger compartment and is used in following conditions:
- smoke or gas emissions
- cabin pressure loss
- first aid.

The system consists of protective breathing equipment with a hood and an oxygen supply. The protective breathing equipment is packed into a vacuum bag which is stored within a container.
An additional system consists of portable oxygen cylinder and continuous-flow mask.

2. Description

R **ON A/C 101-200,

R Portable oxygen equipment is installed in the passenger compartment and
R is used in following conditions:
R - smoke or gas emissions
R - cabin pressure loss
R - first aid.
R The system consists of protective breathing equipment with a hood and an
R oxygen supply. The protective breathing equipment is packed into a vacuum
R sealed bag which is stored within a stowage bracket.
R An additional system consists of portable oxygen cylinder and continuous-
R flow mask.

R 2. Description

**ON A/C ALL

(Ref. Fig. 001)

**ON A/C 004-100,

(Ref. Fig. 002)

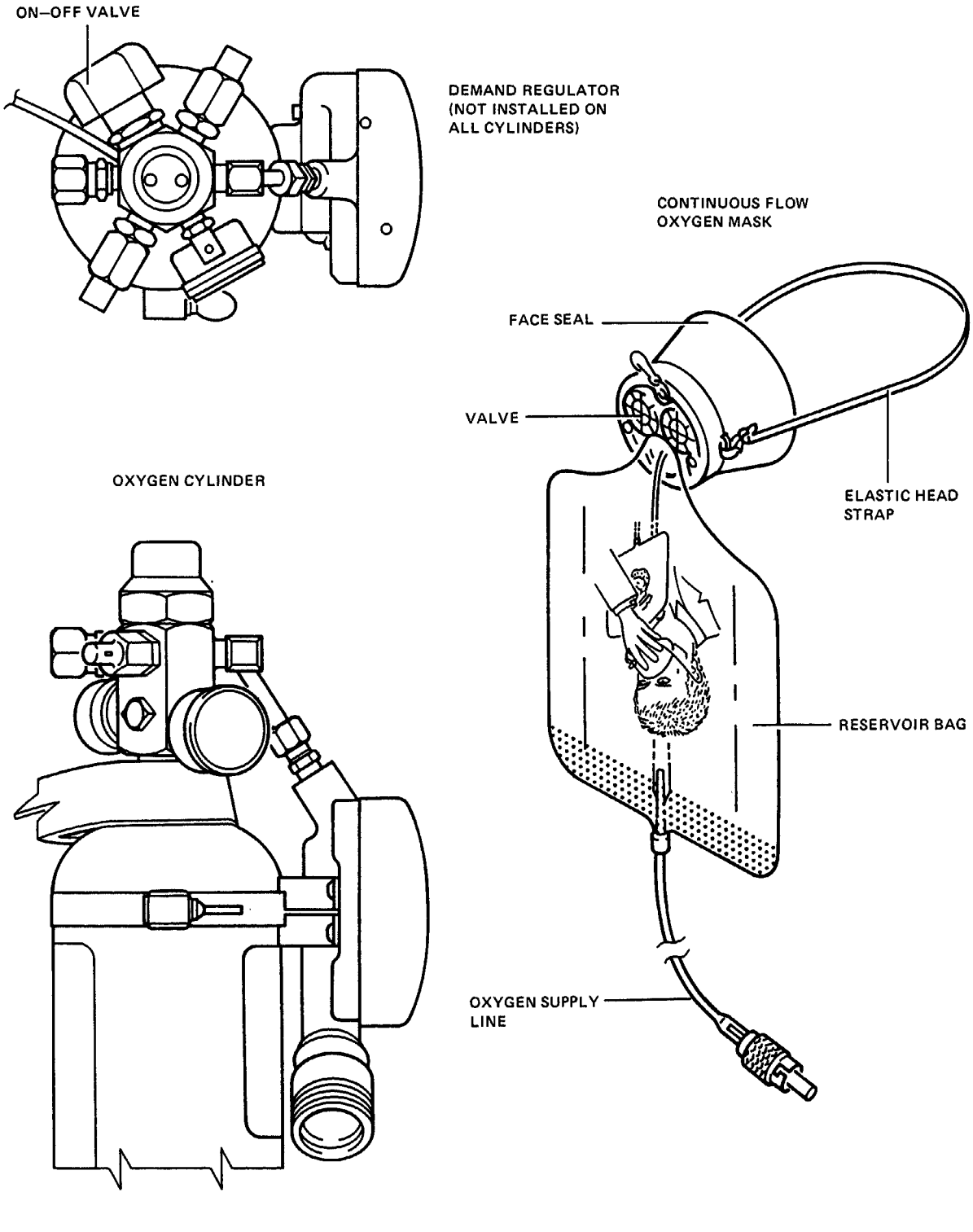
R **ON A/C 101-200,

R (Ref. Fig. 003)

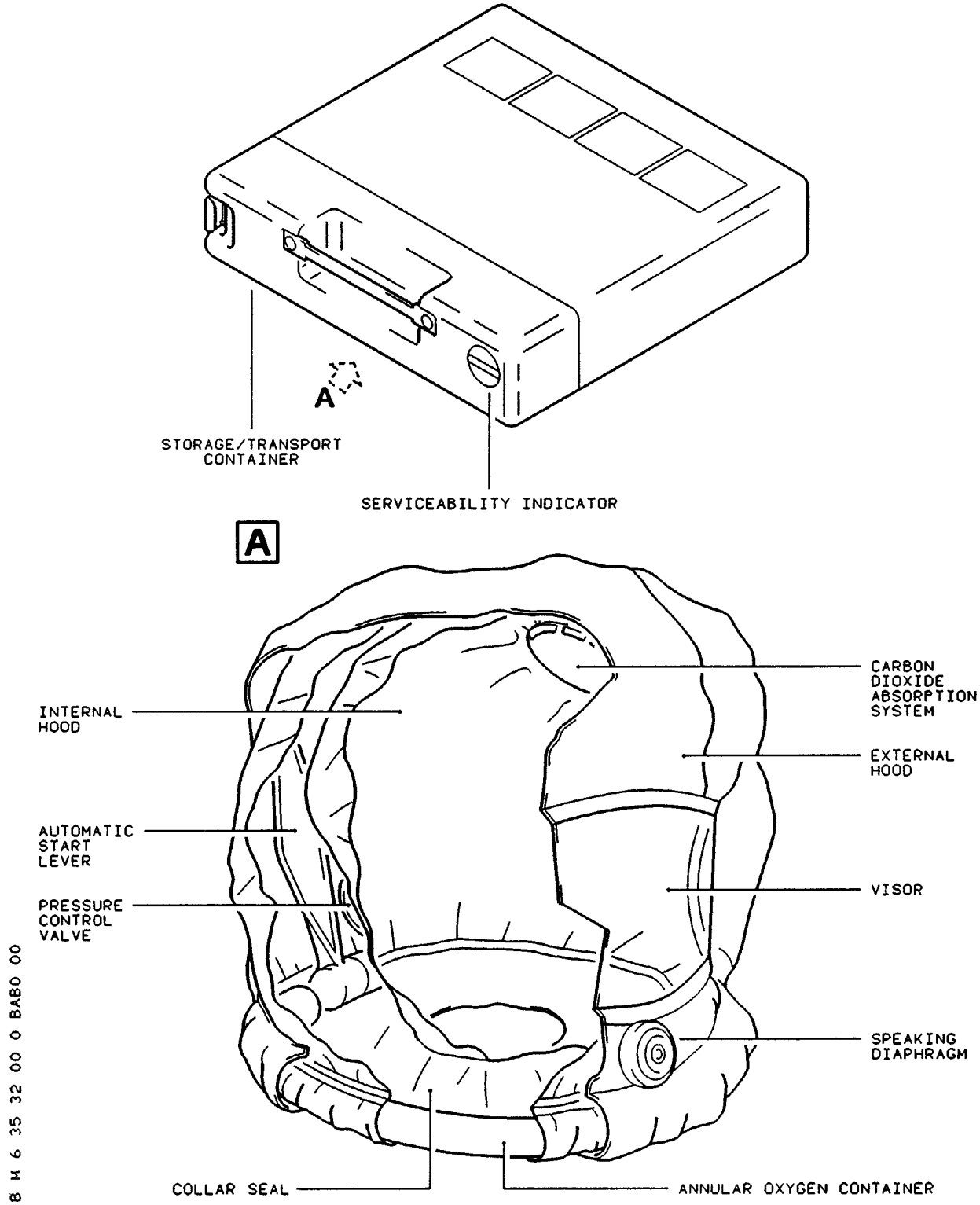
**ON A/C 001-003,

A. Portable Oxygen Cylinder
The oxygen source consists of a high-pressure oxygen cylinder. The cylinder is located in the passenger compartment and held in place by quick-release brackets. The cylinder has a capacity of 11 cu.ft. (0.31 mb) charged to 1800 psig (124.13 bar) at 21° C (70° F).
The cylinder is equipped with a valve assembly including the following components:
(1)A direct-reading pressure gage indicating the cylinder pressure.
(2)A high-pressure relief valve, with a safety burst disc in case over-pressure occurs in the cylinder due to abnormal rise of temperature. The pressure limit is 2700 to 3000 psig (172.4 to 207 bar).
(3)A rotating-type ON/OFF valve which controls the oxygen flow entering the high-pressure chamber of the pressure regulation mechanism.
(4)A charging valve directly connected to the high-pressure chamber of the pressure regulating mechanism and which enables the cylinder to be filled through the ON/OFF valve with a controlled flow. The charging speed must not exceed 300 psi/min.
(5)A pressure control mechanism which ensures pressure regulation to a pressure between 35 and 85 psig (2.4 and 5.86 bar).
(6)A low-pressure relief valve with a check valve calibrated to limit all excessive pressure between 90 psig (6.2 bar) - beginning of opening - and 135 psig (9.3 bar) - fully open.
(7)A demand regulator enabling an oxygen flow, generated by the negative pressure in the oxygen mask during the inhalation phase, to be obtained from a standard supply point. The adjustment limits are as follows:
(a)For a 35 psig supply pressure, a flow of 20 l (Normal Temperature, Pressure Dry (215°C - 1013 mb) is obtained for a water head of 17.8 mm negative pressure.
(b)For a 85 psig supply pressure, a flow of 125 l (Normal Temperature, Pressure Dry (215°C - 1013 mb) is obtained for a water head of 50 mm negative pressure.
(8)A constant flow outlet.

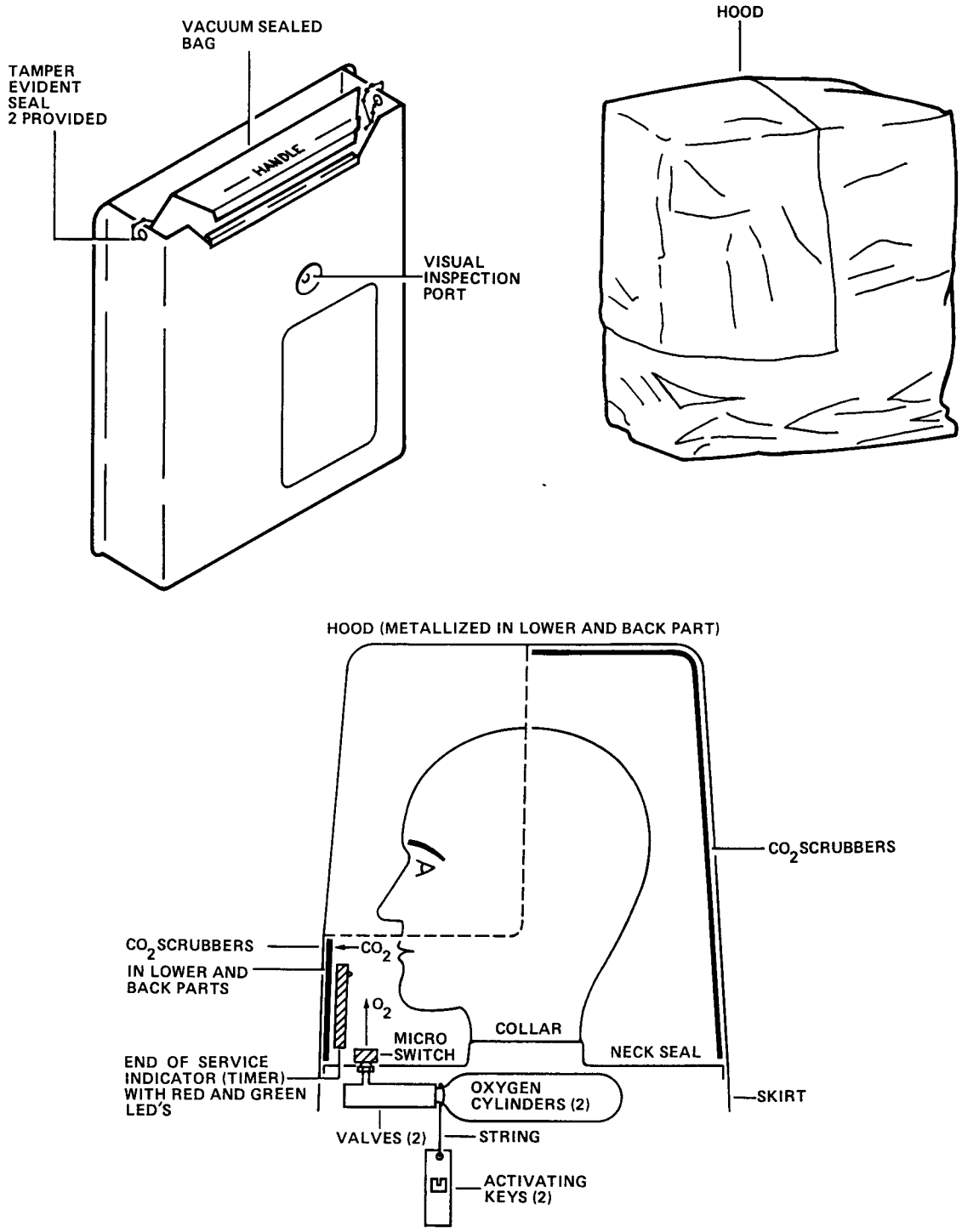
B. Full-Face Smoke Mask
The full-face smoke mask is a demand type and is supplied with oxygen



Portable Oxygen Equipment
Figure 001



Protective Breathing Equipment
Figure 002



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Protective Breathing Equipment
Figure 003

R

from the portable oxygen cylinder. The smoke mask comprises the silicone mask, adjustable head straps, a panoramic visor, an exhalation valve and an oxygen breathing tube.

C. Continuous-Flow Oxygen Mask
The continuous-flow oxygen mask consists of a reservoir bag, a valve, a face seal, an elastic head strap, and an oxygen supply line.

**ON A/C 004-100,

A. Hood
The hood consists of three primary parts:
- the internal hood
- the external hood
- the over hood

(1)The internal hood has two compartments separated by a membrane. One compartment is for the head of the wearer, the other is used as a lung. The separation membrane is made of self-extinguishing material. It has a collar seal at the level of the wearer's neck.
(2)The external hood is made of heat resistant materials and has a sealed visor, a pressure control valve, a speaking diaphragm, a carbon dioxide absorbtion system and an annular oxygen container which is equipped with an automatic starter.
(3)The over hood serves as a protection against fire. It also covers and holds the annular container at the level of the external hood.

B. Container
The protective breathing equipment is packed into an aluminized vacuum sealed bag which is stored within a storage/transport container. This container is equipped with a serviceability indicator. If an oxygen leak occurs, the serviceability indicator will turn to red.

C. Portable Oxygen Cylinder
The oxygen source consists of a high-pressure oxygen cylinder. The cylinder is located in the passenger compartment and held in place by quick-release brackets. The cylinder has a capacity of 11 cu.ft. (0.31 mb) charged to 1800 psig (124.13 bar) at 21° C (70° F).
The cylinder is equipped with a valve assembly including the following components:
(1)A direct-reading pressure gage indicating the cylinder pressure.
(2)A high-pressure relief valve, with a safety burst disc in case over-pressure occurs in the cylinder due to abnormal rise of temperature. The pressure limit is 2700 to 3000 psig (172.4 to 207 bar).
(3)A rotating type ON/OFF valve which controls the oxygen flow entering the high-pressure chamber of the pressure regulation mechanism.
(4)A charging valve directly connected to the high-pressure chamber of the pressure regulating mechanism and which enables the cylinder to be filled through the ON/OFF valve with a controlled flow. The charging speed must not exceed 300 psi/min.
(5)A pressure control mechanism which ensures pressure regulation to a

pressure between 35 and 85 psig (2.4 and 5.86 bar).
(6)A low-pressure relief valve with a check valve calibrated to limit all excessive pressure between 90 psig (6.2 bar) - beginning of opening - and 135 psig (9.3 bar) - fully open.
(7)A demand regulator enabling an oxygen flow, generated by the negative pressure in the oxygen mask during the inhalation phase, to be obtained from a standard supply point. The adjustment limits are as follows:
(a)For a 35 psig supply pressure, a flow of 20 l (Normal Temperature, Pressure Dry (215° C - 1013 mb) is obtained for a water head of 17.8 mm negative pressure.
(b)For a 85 psig supply pressure, a flow of 125 l (Normal Temperature, pressure Dry (215° C - 1013 mb) is obtained for a water head of 50 mm negative pressure.
(8)A constant flow outlet.

D. Continuous-Flow Oxygen Mask
The continuous-flow oxygen mask consists of a reservoir bag, a valve, a face seal, an elastic head strap and an oxygen supply line.

R **ON A/C 101-200,

R A. Hood
R The hood is made of heat and flame resistant materials to protect the
R wearer's head from smoke, fumes and dripping melted plastic materails.
R The universal sized hood with an anti-fog coating, applied to the inside
R providing adequate vision capability, and a neck seal encloses the
R entire head of the wearer and provides breathable oxygen.
R The hood is equipped with two oxygen cylinders and a battery operated
R service/end-of-service indicator. The complete unit is packed in a
R vacuum sealed bag and stored in a stowage bracket.

R B. Oxygen Cylinders
R The available oxygen supply will last 15 minutes during maximum workload.
R Both cylinders will release their contents of oxygen after activation.
R The cylinders are installed at the lateral lower side of the hood.

R C. Stowage Bracket
R The hood system is normally stored in a two component system. This system
R consists of a vacuum sealed bag which is installed in the stowage bracket.
R The stowage bracket provides a barrier to prevent damage to the vacuum
R sealed bag. Two tamper evident seals are mounted to the stowage bracket
R and the vacuum sealed bag which must be broken to get access to the
R vacuum sealed bag. A porthole in the stowage bracket enables a visual
R inspection of the red visual service indicator.

R D. Portable Oxygen Cylinder
R The oxygen source consists of a high-pressure oxygen cylinder. The cylinder
R is located in the passenger compartment and held in place by quick-release
R brackets. The cylinder has a capacity of 11 cu.ft. (0.31 mb) charged to
R 1800 psig (124.13 bar) at 21° C (70° F).

R The cylinder is equipped with a valve assembly including the following components:
R (1)A direct-reading pressure gage indicating the cylinder pressure.
R (2)A high-pressure relief valve, with a safety burst disc in case over-pressure occurs in the cylinder due to abnormal rise of temperature. The pressure limit is 2700 to 3000 psig (172.4 to 207 bar).
R (3)A rotating-type ON/OFF valve which controls the oxygen flow entering the high-pressure chamber of the pressure regulation mechanism.
R (4)A charging valve directly connected to the high-pressure chamber of the pressure regulating mechanism and which enables the cylinder to be filled through the ON/OFF valve with a controlled flow. The charging speed must not exceed 300 psi/min.
R (5)A pressure control mechanism which ensures pressure regulation to a pressure between 35 and 85 psig (2.4 and 5.86 bar).
R (6)A low-pressure relief valve with a check valve calibrated to limit all excessive pressure between 90 psig (6.2 bar) - beginning of opening - and 135 psig (9.3 bar) - fully open.
R (7)A demand regulator enabling an oxygen flow, generated by the negative pressure in the oxygen mask during the inhalation phase, to be obtained from a standard supply point. The adjustment limits are as follows:
R (a)For a 35 psig supply pressure, a flow of 20 l (Normal Temperature, Pressure Dry (215° C - 1013 mb) is obtained for a water head of 17.8 mm negative pressure.
R (b)For a 85 psig supply pressure, a flow of 125 l (Normal Temperature, pressure Dry (215° C - 1013 mb) is obtained for a water head of 50 mm negative pressure.
R (8)A constant flow outlet.

R E. Continuous-Flow Oxygen Mask
R The continuous-flow oxygen mask consists of a reservoir bag, a valve, a face seal, an elastic head strap and an oxygen supply line.

**ON A/C 001-003,

3. Operation

In the event of fire, smoke or noxious gas emission, a cabin attendant uses the portable oxygen cylinder and full-face mask. The oxygen flow control is ensured by the pressure regulator and the demand regulator. The continuous flow masks are distributed by the cabin attendants for first aid oxygen supply to the passengers, if necessary.

**ON A/C 004-100,

3. Operation

A. Protective Breathing Equipment
In the event of fire, smoke or noxious gas emission, a cabin attendant uses the protective breathing equipment. During the donning sequence the auto-

matic starter actuates and releases oxygen into the hood. The pressure regulating valve prevents overpressure in the hood. The oxygen container is designed to deliver oxygen for a minimum of 15 minutes.

B. Portable Oxygen Cylinder with Contiuous-Flow Mask
The continuous-flow masks are distributed by the cabin attendants for first aid oxygen supply to the passengers, if necessary.

R **ON A/C 101-200,

R 3. Operation

R A. Protective Breathing Equipment
R In the event of fire, smoke or noxious gas emissions, a cabin attendant
R uses the protective breathing equipment. During the donning sequence,
R the oxygen supply is automatically activated releasing oxygen into the
R hood and starting the service/end-of-service indicator's green flashing
R light. The hood may now be worn until the red light begins to flash
R indicating the end of the service.

R B. Portable Oxygen Cylinder with Contiuous-Flow Mask
R The continuous-flow masks are distributed by the cabin attendants for first
R aid oxygen supply to the passengers, if necessary.

WARNING : USE EXTREME CARE TO PREVENT THE OXYGEN SYSTEM OR ANY SYSTEM COMPONENTS FROM BECOMING CONTAMINATED WITH GREASE, OIL, OR ANY OTHER HYDROCARBON CONTAINING SUBSTANCE. ENSURE THAT THE INTERMIXING OF TOOLS OR EQUIPMENT THAT MAY HAVE BEEN USED ON ANOTHER TASK OR AIRCRAFT IS NOT CONTAMINATED WITH GREASE, OIL OR ANY OTHER HYDROCARBON CONTAINING SUBSTANCE. AVOID THE SUDDEN RELEASE OF OXYGEN UNDER PRESSURE. ANY OF THE ABOVE CONDITIONS MAY CAUSE AN EXPLOSION OR FIRE. CAP ALL INLET AND OUTLET CONNECTIONS AS THEY ARE DISASSEMBLED TO PREVENT DIRT, OIL, OR GREASE FROM ENTERING THE SYSTEM.

1. Operational Check

A. Reason for the Job
Operational check of the oxygen cylinder and visual inspection of the mask.

B. Procedure
(1)Job Set-Up
(a)Get access to the oxygen cylinder.
(b)Remove the oxygen cylinder from the quick-release brackets.
(c)Connect the oxygen mask to the oxygen cylinder:
1 Open the oxygen mask stowage box and remove the oxygen mask.
2 Connect the oxygen mask to the oxygen cylinder.
(2)Operational Check
(a)Open the valve of the oxygen cylinder and perform a breathing test.
(b)Close the valve of the oxygen cylinder.
(3)Close-Up
(a)Disconnect the oxygen mask from the oxygen cylinder.
(b)Inspect the oxygen mask for proper condition.
(c)Put the oxygen mask back into the oxygen stowage box.
(d)Inspect the quick-release brackets for secure attachment and proper condition.
(e)Place the oxygen cylinder on the quick-release brackets and close the clamp.
(f)Make sure that the working area is clean and clear of tools and miscellaneous items of equipment.

PROTECTIVE BREATHING EQUIPMENT - INSPECTION/CHECK

1. Reason for the Job
   Detailed inspection of tamper seal/serviceability indication of protective breathing equipment.

2. Procedure

   A. Job Set-Up
      (1)Get access to the protective breathing equipment.

   B. Detailed Visual Inspection of the Protective Breathing Equipment
      (1)Make sure that the tamper seal is not broken.
      (2)Check the vacuum sealed bag through the transparent door.
         Loss of vacuum causes a slight inflation of the bag.
      (3)If one of these points is not correct, you must replace the equipment.

   C. Close-Up
      (1)Make sure that the working area is clean and clear of tools and miscellaneous items of equipment.

PORTABLE OXYGEN CYLINDER - INSPECTION/CHECK

WARNING : PERSONNEL IN CHARGE OF CARRYING OUT THE ACTIONS BELOW MUST BE AWARE OF THE RISKS INVOLVED IN HANDLING OXYGEN WHICH ENHANCES COMBUSTION IN THE PRESENCE OF FUEL AND BECOMES EXPLOSIVE IN THE PRESENCE OF HYDROCARBONS (FUELS, LUBRICANTS).

WARNING : MAKE SURE THAT YOU OBEY THE MANUFACTURER'S INSTRUCTIONS AND NATIONAL HAZARDOUS MATERIAL REGULATIONS WHEN YOU MOVE OR KEEP THIS EQUIPMENT IN STORAGE:
- CHEMICAL OXYGEN GENERATORS
- PROTECTIVE BREATHING EQUIPMENT
- FIXED AND PORTABLE OXYGEN CYLINDERS

SPECIAL PRECAUTIONS ARE NECESSARY FOR THIS EQUIPMENT.

1. General Check

NOTE : The inspection/check procedure is applicable to both the flight crew and cabin attendant portable oxygen cylinders.

A. Reason for the Job

R (1)Visual inspection during scheduled maintenance and hydrostatic test of
R portable oxygen cylinders and check of LP relief valve.

B. Procedure

(1)Job Set-Up
(a)Remove portable oxygen cylinder from quick-release brackets.
(2)Visually inspect the cylinder.
(a)Inspect cylinder for damage and cleanliness.
(b)Inspect regulator for damage and cleanliness.
(c)Inspect pressure gage for scratches on window and legibility of the scale.
(d)Check that pressure gage registers correct pressure which is 1800 psi at 21°C (70°F).
(e)Inspect regulator assembly for damage and secure attachment.
(f)Inspect charging valve and relief valve for cleanliness and secure attachment and ensure that cap is in place.
(g)Inspect demand regulator and adapter for damage and secure attachment.
(h)Inspect carrying straps for fractures and secure attachment.
(j)Inspect quick-release brackets for secure attachment.
R (3)Carry out the hydrostatic test of portable oxygen cylinder and check
R of LP relief valve in the work shop.
(4)Close-Up
(a)Place portable oxygen cylinder on quick-release brackets.
(b)Make certain that working area is clean and clear of tools and miscellaneous items of equipment.